BANK ADMINISTRATION

BANK ADMINISTRATION

By
H. N. STRONCK

With an Introduction by
MELVIN A. TRAYLOR
President, The First National Bank of Chicago

RAND McNALLY & COMPANY
NEW YORK CHICAGO SAN FRANCISCO

Made in U. S. A.

To

The Honorable J. W. Pole

In appreciation of his aid and coöperation in the development of "Earning Power Examinations of Banks," which served as a basis for a great amount of the data upon which this book is based

THE CONTENTS

		PAGE
Introduction		9
CHAPTER I.	THE TRIANGLE OF MANAGEMENT	11
II.	OPERATING PROFIT FACTORS	31
III.	SOUND POLICIES	43
IV.	THE ORGANIZATION STRUCTURE	51
V.	ORGANIZATION ANALYSIS	58
VI.	PERSONNEL ADMINISTRATION	66
VII.	DEVELOPMENT OF PERSONNEL	75
VIII.	THE BUSINESS DEVELOPMENT FUNCTION	89
IX.	THE OPERATING FUNCTION	101
X.	BANK PRODUCTION ANALYSIS	110
XI.	LOAN ADMINISTRATION POLICIES	117
XII.	THE EVALUATION OF CREDIT RISKS	126
XIII.	CONVERSION OF FUNDS	139
XIV.	SECONDARY RESERVES AND INVESTMENT ACCOUNT	152
XV.	THE CONTROL FUNCTION	160
XVI.	DEPARTMENTAL EARNINGS ANALYSIS	168
XVII.	ANALYSIS OF THE COST OF DEPOSIT ACCOUNTS	179
XVIII.	SAVINGS DEPARTMENT OPERATIONS	191
XIX.	BOND AND TRUST OPERATIONS	200
XX.	COMPARATIVE MEASUREMENT OF RESULTS	209
Reference Summary		219
List of Charts		229

INTRODUCTION

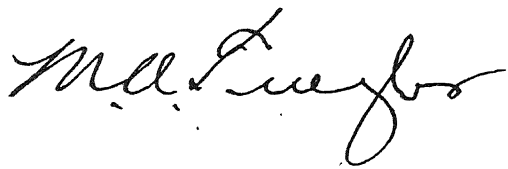
By MELVIN A. TRAYLOR
President, The First National Bank of Chicago

In recent years banking in this country has undergone great changes, in part as a result of the war and in part also due to the progress of time. It has therefore become necessary to take stock, as it were, of our present condition and to investigate thoroughly the lines of future development.

This need is especially great in respect to the administration of banks, for, owing largely to consolidations, banks have grown to a size not heretofore known in this country. The management adequate for the small units which were formerly customary may not be entirely adequate and proper for the larger institutions which we have seen arise within the last years. Furthermore, the change which has come has not been merely one of size but also of scope; not merely have there been enlargements horizontally, but also vertically, by which it is meant that banks have not only grown along customary lines but have added new functions: investments, trusts, savings, travel bureaus, foreign branches, and what not. Obviously, careful consideration is needed to bring these functions into harmony and make them work together to a common end.

It is for these reasons that this book by Mr. H. N. Stronck is to be welcomed. It appears to me to be a sound and valuable discussion of the problems now confronting bank administrations, and it may give valuable hints to many who are actively engaged in the daily task of directing our financial institutions. By previous training Mr. Stronck is well qualified for the work which he has undertaken. He has had large experience acting in behalf of particular institutions and also in connection with bankers' associations and other groups interested in the welfare

of banking. In my judgment, the conscientious director, the forward-looking executive, the growing officer, and the ambitious employee of every bank in the United States ought to be trained not merely in the practice but also in the theory of his profession. In both respects Mr. Stronck's book should be of value.



BANK ADMINISTRATION

CHAPTER I

THE TRIANGLE OF MANAGEMENT

1. Sound Policies
2. An Effective Organization
3. A Control over the Organization

YEARS ago investors, seeking high-grade stocks, turned to rails. More recently, the stocks of public utilities became popular. But now a tendency is developing rapidly toward the purchase of bank stocks.

Stocks of leading banking institutions are becoming widely spread. The general public buy them. Because of this demand, the price of bank stocks has reached such high levels that the yield from dividends on stocks of many institutions is lower than that of any high-grade investment security, not even excluding governmentals.

The general purchaser of bank stocks is seeking his gain through the appreciation of book value, and book-value appreciation can be gained only through high earning power—and high earning power, again, is dependent upon the managerial ability of the bank's organization.

Why will one bank earn 17 per cent on its invested capital and another bank, in the same community,

only 6 per cent? What is the relationship between the managerial effectiveness of the two banks?

Is the bank earning the 17 per cent an ideal bank from an earning-power standpoint?

Suppose an analysis indicated that the 17 per cent bank should have earned 22 per cent, had it been well balanced and all divisions operated at near perfection. To whom should the attainable 5 per cent difference be charged?

If it earned only 17 per cent, and could have earned 5 per cent more, is not this 5 per cent just as much an economic loss as though the bank actually had a net loss of 5 per cent?

SOUND POLICIES

Unfortunately, you seldom find the policies of banks in written form. Major policies are supposedly determined by the board and passed down the line by the president. Minor policies generally are determined by officers and department heads and passed on.

Many policies are traditional. They are supposed to be known and understood by all; they are assumed to conform with the general banking trend and banking practices. But these questions arise: Are the policies sound? Are they understood by all? Are they applied?

With reference to loan and investment administration, practically every banker will tell you that his

policy is one of diversification of loans and investments and a secondary reserve of sound, marketable securities. But is this policy actually applied?

In many instances an examination of loan lines shows that we have dangerous concentration rather than diversification, and an examination of the items in the investment account reflects many items not suitable for bank investments and a preponderance of non-liquid securities.

With reference to the personnel policy, practically every banker will state that he wants the employees treated right; that he wants them satisfied as to salaries, working conditions, and opportunities for advancement; that he wants coöperation between his officers and employees. If this is the policy, why do we find large turnovers, dissatisfaction, and that "invisible wall" between the officers and employees in so many banks?

With reference to new business, practically every banker will tell you that his policy is to seek profitable accounts. Why then do we find so many unprofitable accounts? But relatively few banks know their costs accurately enough to make possible a determination of the profitableness of accounts. If they do not know their costs, how can they differentiate between a profitable and an unprofitable account?

Practically every banker will tell you that his policy is to make every department self-supporting. Why

then do we find so many unprofitable operations? But few banks have true departmentalized accounting. How then will a banker know whether or not any of his departments are self-supporting?

AN EFFECTIVE ORGANIZATION

Now let us assume that we have developed sound banking policies. The problem that confronts us is the effective application of these policies. The duty of effectively applying these policies rests upon the organization. The president, as chief executive, is responsible to the board for the final answer—net additions to profits.

In some banks it has become a fad to analyze minutely the duties and work of employees, but how about the job of the chief executive? Few chief executives are free from policies and practices of executive procedures which limit organization efficiency.

If you have detail employees 100 per cent efficient, and have an executive at the top only half as good an executive as they are workers, you are going to lose a great deal more by the failure of that executive than you will gain by the efficiency of the employees. Inefficiency begins at the top and trickles down; it does not begin at the bottom and trickle up.

In his relations with his associates the primary function of the chief executive should be to inspire, inform, and lead; to coördinate specialized related efforts to

accomplish a defined common purpose, and at the same time leave to each staff executive responsibility and authority to devise and apply methods for accomplishing that for which the staff man is responsible. He must be informed by his associate executives as well as inform them; he must receive inspiration from them. The day of the one-man institution is passing.

Coördination is to be effected first by a clean-cut analysis of departmental functions and a clean-cut definition of purposes and responsibilities. The chief executive should have the wisdom and the courage to put down in black and white a clear statement of purposes, policies, and procedures. The work of the institution should be functionally analyzed, and from this analysis an ideal organization plan and an ideal routine of relationship should be set up.

The "acid test" as to the capabilities of an organization is applied by taking an inventory of the capabilities of the present members and determining whether or not there is sufficient capability available to fill effectively all of the "key" positions called for in the ideal organization plan.

A great chief executive is one who has an ideal plan, employs such individuals as conform reasonably to the requirements of the plan, and then develops them until they ideally fit the ideal plan.

How many banks have set up an ideal plan as a goal? It is a rather unusual experience to find even

the present plan charted and defined. Usually when a plan is found it is accompanied by the apologetic statement either that the plan is obsolete or that "it does not work that way"—and then so many exceptions to the rule are given that the plan is no plan at all.

WORK OF CHECKING NEW BUSINESS

Why do some banks have an outstandingly rapid growth rate while others remain at a standstill? Because the rate of growth of business in a community has a decided effect upon the aggregate growth of banks in that community, it is not usually equitable to compare the rate of growth of a bank in one city with that of a bank in another city.

Suppose the rate of growth of the aggregate deposits of all banks in a community, over a given period, is 12 per cent, but the rate of growth of one bank is 21 per cent, while that of another is only 4 per cent. Shall we say that the bank with the 21 per cent growth has a very effective deposit-building plan and that the bank with the growth of only 4 per cent a very poor plan? Shall volume be our only consideration?

It is a well-known fact that a bank with large deposits may not reflect as high an operating profit (before losses) as a bank with fewer deposits. Volume is often given the greatest consideration rather than profitableness of accounts.

To illustrate, one solicitor of country-bank accounts was considered the "star performer" because he produced the greatest volume of country-bank deposits—an aggregate of $535,000. Another solicitor produced aggregate balances of only $265,000.

An analysis of this business disclosed an operating profit of $1,820 on the $535,000 aggregates, whereas this profit on the $265,000 was $3,200. Who was the more capable solicitor?

It is an established policy among well-conducted business institutions to instruct salesmen to push those lines on which there is the greatest gross profit. Suppose the operating profit per $100 of funds per annum of commercial checking accounts is seventy-five cents, of country-bank accounts fifty cents, and of savings accounts $1.10. On what service should this bank stress its sales effort?

Unless a bank knows definitely just what its margin of profit is on various operations it cannot operate an intelligent business-development plan. It is in the same position as the manufacturer who does not know the cost of his various products.

What is the business-development plan? Is it of the spasmodic type, with a few full-time solicitors and then an annual so-called "drive" in which the entire organization is to participate and which lasts about a month, or is it a consistent and persistent day-by-day and month-by-month plan?

Why not organize the work of the officers and "key" employees in such a way that each of them can devote a definite amount of time each week to calling on present customers and on prospects?

A BASIS FOR CHECKING BANK OPERATIONS

What do comparisons of expense ratios, either as a percentage of gross income or per $100 of earning assets mean, and what conclusions can we draw therefrom?

Suppose we go farther and compare these ratios of banks of the same size in resources or deposits. Will this give us the answer as to comparative managerial ability? Only in a very broad way, for this method is not sufficiently scientific to reach definite conclusions.

Leaving out of the problem the obvious impracticability of comparing the "over-all" expense ratios of a strictly commercial bank, whose income is almost entirely from interest, with one whose income from trust, bond, and mortgage departments plays an important rôle, there are two basic laws to be considered:

1. *The law of time deposits:* The greater the ratio of time deposits to total deposits, the less should be the operating-expense ratios and the greater should be the interest-paid ratio.
2. *The law of transactions:* The greater the number of transactions per month per $1,000 of deposits, the greater will be the expense ratios.

The effects of the first law are readily observed. All of us have noticed the small number of employees per $1,000,000 of deposits in strictly savings banks as compared with strictly commercial banks, or the relatively small number of employees, in relation to deposits, in savings departments of banks as compared with the commercial department.

To illustrate the second law, the following actual examples are presented:

Bank	Deposits	Employees
Bank A	$12,000,000	104
Bank B	17,000,000	110
Bank C	23,000,000	72

None of these banks had non-banking departments, such as trust or bond. Each had individual checking accounts, country-bank accounts, and small savings departments, but their ratios of time deposits to total deposits were almost identical.

As to number of employees per $1,000,000 of deposits, we have:

Bank A....8.7
Bank B....6.5
Bank C....3.1

Based purely on these figures, it would appear that the employees of Bank C were by far the most efficient —that they were more than twice as efficient as those of Bank B and nearly three times as efficient as those of Bank A. A comparison of transactions handled by these employees, however, changes the picture

completely. The following comparisons indicate the vast difference in the nature of the accounts handled by these institutions.

Number of transactions per $1,000 of deposits per month:

Bank A	81
Bank B	48
Bank C	21

Number of transactions per employee:

Bank A	9,346
Bank B	7,418
Bank C	6,708

Now from a standpoint of employees' efficiency, Bank A with the greatest number of employees per $1,000,000 deposits has the highest rank, and Bank C with the least number of employees per $1,000,000 of deposits takes the lowest rank. It is needless to observe, however, that the operating profit per $1,000 of deposits of Bank C is by far the greatest, not due, however, to the efficiency of employees but to a deposit-building policy of "quality accounts only."

When we deal in costs of transactions we are dealing in comparable units, and if we determine standard costs, a comparison of these with actual costs will serve as a measure of managerial ability in the operating departments of banks.

A BASIS FOR COMPARING COSTS

Why, under identical methods of accounting, do costs of checks "on us" vary from as low as 1.6 cents

to as high as 5.2 cents, and what is an attainable standard cost?

Why do salary costs per item, of certain transactions in savings departments, vary from as low as 8 cents to as high as 32 cents?

Why do average outputs of individual bookkeepers, alternating on statements, run as low as 12,000 debit and credit postings per month on books, in one bank, and as high as 32,000 in some other bank?

Does the fault lie in the management of equipment, methods, or personnel? It may be a combination of all three factors, but all three are controllable factors, and what managerial ability would you give a cashier in charge of operations, if his costs were in the high range and the outputs in the low range?

Why do some banks still use the fixed-position plan of employees in departmental operations, with a resultant low time-utilization factor, as contrasted with the "shifting crew" principle with a high time-utilization factor?

In the average bank, the difference between the two in number of employees necessary to perform the work is from 20 to 25 per cent in favor of the shifting-crew principle.

To illustrate, in most savings departments a "peak load" is developed during one day of the week only. During the other five days the load is only from one-half to one-third of the peak load. There are still

many savings departments organized in fixed number of personnel sufficient to handle the peak-day load, with a resultant great deal of unapplied time the other five days—instead of being organized with fixed personnel for the load requirements of five days and shifting employees from other departments or general utility employees, to aid in handling the peak-day load.

PERSONNEL ADMINISTRATION

All bank jobs can be analyzed and classified into a number of groups. All jobs within a group should be of relatively like dollar value, regardless of the department in which the work is performed.

There should be a minimum and a maximum range of salary for each such group. The basic salary rates of each group should be correct not only in relation to competitive wage scales but also in relation to the other groups.

Such a classification will apply to the work of all banks with relatively the same type of operations. What should be the percentage in number of employees in each group to total employees in an ideal bank?

Why will one bank have a far larger proportion of senior clerical work and a far smaller proportion of junior clerical work than another, when senior clerical work has a substantially greater wage scale than junior clerical? It is a case of difference in procedures and subdivision of work.

Having established a standard salary-range scale for each group, compare the actual wage scales and note the divergencies. Note how many employees are overpaid and how many are underpaid. It requires a certain length of time on a job for an employee to become thoroughly familiar with the work and be what one might term "seasoned." The seasoning factor of an organization may then be defined as the per cent of seasoned employees in each group of jobs compared to the total employees in a group.

It has been found that this seasoning factor method throws more light on the situation than labor turnover figures; that technically poor systems and methods give good results if the employees are highly seasoned, as compared with poor results of technically perfect systems handled by unseasoned employees.

The degree of seasoning of an organization reflects the result of personnel policies and their application. Applying identical analysis methods, aggregate seasoning factors for entire organizations have been found as low as 42 per cent and as high as 94 per cent.

In many banks there are too many "average" employees and too few "cream" employees, usually due to the fact that the personnel officer uses average wage scales in inducing employees to enter the organization.

Other things being equal, a difference of only 10 per cent above the average scale will attract "cream"

employees. The increase in output of a "cream" employee beyond that of a so-called average employee is from 30 to 50 per cent. The capable employee, moreover, lends himself better to training for higher positions than does the average man.

A PLAN FOR CHECKING A BOND DEPARTMENT

Now let us consider a typical non-banking department, such as the bond department.

The manager of a certain bond department was considered by the board as the "king pin" executive of the entire institution, because of the dollars of departmental profit shown. An analysis, however, indicated that the department was operated only at 69 per cent of an attainable standard, whereas the savings department was operated at 92 per cent.

The ratio of salaries and commission to gross income in one bond department was 18 per cent and in another 42 per cent. In the case of the 18 per cent, 92 per cent of the sales were over-the-counter sales. Every officer in that bank, regardless of what department he was in, was a bond salesman. In the case of the 42 per cent ratio, we had a "free-lance" department. We might just as well have disassociated it entirely from the bank. The bulk of its sales were made by outside salesmen.

Contrast the managerial difference in the development of these two departments. In the one case we

have a manager who inspired coöperation among all, from lobby men to stockholders. In the other case, we have the reverse.

An analysis was made of three bond departments of relatively the same size as to volume of securities sold, and all handled about the same type of securities. The departmental operating-profit ratio, under the same methods of accounting, was about the same, that is, it ranged from 52 to 56 per cent. After calculating the minutely detailed ratios, selecting the most favorable from each and rebuilding therefrom a new operating-profit ratio, this synthetic ratio became 72 per cent in place of from 52 to 56 per cent. In other words, had each benefited by the best experience of all, the operating profit of each would have been 30 per cent greater. If, then, under similar conditions, we use such composite ratios in the comparative measurement, do we not have a good "yardstick" for the measurement of managerial ability?

LOAN ADMINISTRATION

It has been said that the efficiency of the loaning division can be most easily checked, for losses will come to the surface, and when they do, they are rather definite.

But let us consider this: during the fiscal year ended June 30, 1926, the net losses to gross income of the aggregate of all national banks in the city of New York

were 10.9 per cent, while in Dallas, Texas, they were 3.3 per cent. Can we say, therefore, that the loaning officers in Dallas are about three times as efficient as those in New York? Perhaps the Dallas people would say yes, but how about the New Yorkers? The New Yorkers might say, "In 1923 our losses ratio was only 9.5 per cent, while that of Dallas was 16.8 per cent."

Because of the nation-wide distribution of bonds, it is possible that bond holdings of banks in various sections of the country may be relatively the same, hence a comparison of losses per $100 of bonds is a fair barometer, but how about losses per $100 of loans and discounts?

In some banks as high as 90 per cent of all loans are true secured loans, that is, the collateral is ample and marketable. In other banks this proportion may be as low as 20 per cent. An aggregate comparison of losses on all loans and discounts is therefore unequitable. Also the relationship between secured and unsecured loans is difficult to control because of the difference in the nature of the business of borrowing customers of various banks.

On true secured loans, that is, when the security was placed at the original transaction and not forced collateral, we might establish a loss rate per $100 of such loans and apply it practically everywhere, and let this serve as our "yardstick."

But how about losses per $100 of unsecured loans? Suppose, for example, a certain bank caters to the textile industry. A sudden depression hits the textile industry and, as a result, this bank suffers heavy losses on these accounts, even being forced to go into the textile business.

Suppose, by some fortunate streak, another bank does not have textile accounts, but has accounts in other lines which are still prospering. Can we equitably compare the aggregate losses per $100 of loans and discounts of the two banks and thereby judge the comparative efficiency of the loaning groups?

What is being implied is that in order to develop a scientific "yardstick" we must go far beyond aggregate comparisons. Generally speaking, however, a relatively fair general comparison is the comparison of the loss ratio over a period of from five to ten years of one bank with the aggregate of all other banks in that community and in near-by communities serving about the same type of borrower; as for example, banks in agricultural districts where agricultural products and crop conditions are about the same and where loans are made principally to farmers.

A CONTROL OVER THE ORGANIZATION

The third side of the triangle of management is control.

The prime object of the control function is to see

that the organization carries out the policies, and determines to what degree this is done, and the results.

It should answer specifically: What has been accomplished? Where have we failed? Who is responsible for accomplishments and for failures?

When fully developed, the control function is one of the most powerful tools of management. The degree to which it is developed reflects upon the ability of the chief executive.

The question has frequently been asked: "What should be the duties of a comptroller in a bank?"

The answer is: "Given a chief executive, aided by a group of officers who can establish, by scientific means, a ratio of net profits to invested capital attainable, but not without effective management of all departments, for the coming year, it is the duty of the comptroller to see that this objective is realized."

Contrast this with the present development of the control function in the majority of banks.

A few comments follow about budgetary control, that panacea which is now advocated as a cure for all business ills. Most budgets are based solely upon past experience, or when a "cut" is made it is uniform over all departments, thus penalizing very efficient departments. Budgets should be based upon standard ratios, and thus a true goal set before each department manager.

DEVELOPMENT OF STANDARDS

In order to develop "yardsticks" for the measurement of managerial ability, the following steps are necessary:

1. Determine what factors are to be measured.
2. Devise a method of gathering these factors from a relatively large group of institutions.
3. Apply the identical method to the identical factor in each institution, so that like units will be compared.
4. Compare and analyze the results.
5. Select the best factor and determine just how it has been attained. Go even farther—analyze the method of attainment and see whether or not it can be improved.
6. From these best factors, reconstruct a complete picture. This is the ideal bank with which individual banks are to be compared.

NET PROFITS FACTORS

There are two groups of factors influencing net profits—controllable factors and non-controllable factors.

Controllable factors are those within the control of an individual institution. If any of these are "out-of-line," the responsibility rests entirely with the members of the bank's organization.

Non-controllable factors are those which can be

remedied only by group action on the part of all banks in the community. Among such are:

Interest rates on time deposits.

To some extent, interest rates on certain classes of demand deposits, such as country-bank accounts.

Service charges on checking accounts, returned items, safe-keeping, rent schedules on safe-deposit boxes, and so on.

CHAPTER II

OPERATING PROFIT FACTORS

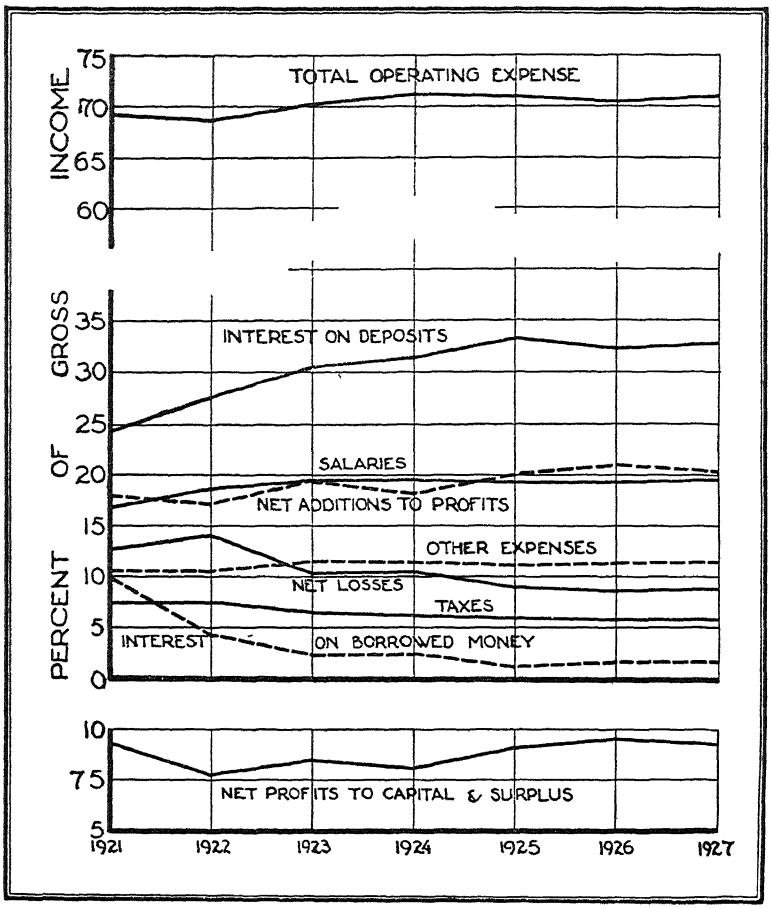
THE net profits of a bank should be sufficient to yield an adequate return to the stockholders commensurate with the investment risk and investment desirability. They should be sufficient to make possible the establishment of ample reserves for the protection of the depositor and for serving the financial requirements of the community.

In order to determine what might be considered an adequate return on invested capital in any individual institution it is necessary:

1. To determine the general position of the banking field as a whole, or of a large cross-section thereof.
2. To contrast the effects of the difference in the character of the business of individual banks and of other factors which affect net profits. Assuming the same degree of administrative ability, the following are such factors: (*a*) size of bank, (*b*) source of income, (*c*) time-deposit ratio, (*d*) activity of deposit accounts, and (*e*) ratio of invested capital to deposits.

Detailed statistics of earnings over an extended period of years are available for the national banks. They represent a large proportion (about 39 per cent)

of all banking resources. They also represent the results of a typical group of banks whose income is largely derived from interest and discount.



A chart showing the expenses, profits, and profit rates to invested capital for all national banks

The charted data reflect the experience of all national banks, both from a standpoint of tracing the

disbursement of each income dollar (expenses and profits expressed in percentages of gross income) and the profit ratio to invested capital.

These banks have passed through a period of subnormal profits on invested capital, represented by the years 1922, 1923, and 1924, and their earning power has again been rapidly accelerated, commencing with 1925.

Some of the expense ratios, notably salaries and other expenses, reflect a high degree of stabilization; other groups, such as net losses and taxes, reflect consistent downward trends. The interest-paid-on-deposits ratio grew to dangerous proportions, but a more stabilized tendency is witnessed commencing with 1926.

The resultant of these factors is the net additions-to-profits ratio, and this ratio reflected a relatively stabilized position with an upward tendency commencing with 1925.

It would be difficult to find a large aggregate in any major division of industry or commerce, with the possible exception of electric light and power utilities and wire communication enterprises, which would reflect the same degree of net-profits stabilization during this period.

THE SIZE OF BANK FACTOR

The earning assets of a bank must be sufficiently large to derive income therefrom great enough to meet

all expenses and leave a profit. Many small banks do not have sufficient earning assets to meet this condition. This is clearly shown by the accompanying table, "Do Small Banks have a Chance?" showing figures for 1,400 banks, all of them located in one state, and arranged by size.

DO SMALL BANKS HAVE A CHANCE?

Figures for 1,400 banks in one state to show profit and loss according to total earning assets

GROUP	EARNING ASSETS	% OF TOTAL NO. OF BANKS	% OF PROFIT BEFORE DEDUCTING LOSSES	% of TOTAL NET PROFIT	% NET PROFIT TO INVESTED CAPITAL	
1	Under $ 75,000	3.7	—	−4.0	−7.60	
2	$ 75,000 to 100,000	4.7	0.5	−0.1	−0.10	
3	100,000 to 150,000	11.1	1.8	−13.0	−5.38	
4	150,000 to 250,000	22.0	6.6	−13.3	−2.24	
5	250,000 to 500,000	31.2	19.4	−11.7	−0.87	
6	500,000 to 750,000	12.0	12.2	−17.3	−2.32	The profit
7	750,000 to 1,000,000	5.2	8.7	12.5	2.74	line
8	1,000,000 to 1,750,000	5.5	12.7	31.5	4.25	
9	Over $1,750,000	4.6	38.1	115.4	6.17	
		100.0	100.0	100.0	1.63	

— Denotes loss.

The group of banks with earning assets of less than $75,000 failed to earn even an operating profit (profit before deducting net losses). Almost no operating profit was contributed by groups 1, 2, and 3.

The groups of larger banks with earning assets of over $1,000,000, although they represented but 10.1 per cent of the number, contributed 50.8 per cent of the aggregate operating profit. What remained of the operating profit of the smaller banks was more than dissipated in losses.

The groups of larger banks (7, 8, and 9) alone contributed to the aggregate net profits; these groups, although representing only 15.3 per cent of the number, contributed 159.4 per cent and the other groups, representing 84.7 per cent of the number of banks, depleted the aggregate net profits 59.4 per cent.

Only the last two groups, representing 10.1 per cent of the number, produced earnings on invested capital in excess of savings-account interest rates.

The effect of the size factor on net additions to profits is more clearly indicated by expressing the various expense factors as a per cent of the gross income.

The table entitled "Where the Big Banks Gain" represents the aggregate experience of groups of banks, all located in one city, arranged according to size.

WHERE THE BIG BANKS GAIN

"The bigger the bank, the better the chance of increased profits"

EARNING ASSETS	PERCENTAGES OF GROSS INCOME		
	$1,000,000 to $2,000,000	$5,000,000 to $10,000,000	Over $15,000,000
Salaries and wages	31.16	25.30	19.39
Interest on deposits	22.88	27.65	31.36
Interest on borrowed money	0.46	1.19	0.55
Taxes	2.84	4.97	6.24
Other expenses	22.84	15.86	12.10
Total expenses	80.18	74.97	69.64
Net losses	7.85	3.61	2.54
Net additions to profits	11.97	21.42	27.82

It will be observed that the greater the size, the greater is the "interest paid on deposits" ratio, but the smaller are the other direct-operating expense ratios.

Also, the smaller is the "net losses" ratio and the greater the "net additions to profits" ratio.

A realization of the size factor on net profits has resulted in an unprecedented bank-merger era in the United States. The gross income of the large bank is so great as to make possible the engaging of the best administrative talent, with resultant specialized and intensive management procedures.

On December 31, 1925, twenty-eight national banks, with a capital of $5,000,000 or more, representing only .35 of one per cent of the number of all national banks, had 22.6 per cent of the capital of all national banks and 28.4 per cent of all of the national-bank deposits.

THE SOURCES OF INCOME FACTORS

Because of lower rates of yield from interest and discount, the operating-profit margin of purely commercial banks has diminished. As a result of this tendency, many banks have developed other sources of income, notably bond, trust, and real-estate mortgage departments. The per cent of operating profit to gross income of such well-conducted departments is usually substantially greater than for commercial banking departments; hence the operating-profit margin to gross income of the entire institution becomes enlarged thereby.

The table on page 37 shows the effect on the operating-profit ratio of the moderate development of other

sources of income. Bank A is a purely commercial bank, for practically all of its income is from interest and discount. The commercial banking department of Bank B is about equal in size with Bank A as to deposits and character of business, and the operating-profit ratio of its commercial banking department is almost identical to that of Bank A. However, 20.8 per cent of the gross income of Bank B comes from bond, trust, and real-estate mortgage operations.

BANK A		BANK B	
INCOME FROM INTEREST AND DISCOUNT	% OF GROSS INCOME	INCOME FROM INTEREST, DISCOUNT, BOND, TRUST, AND REAL ESTATE MORTGAGE OPERATIONS	% OF GROSS INCOME
Interest and discount	99.0	Interest and discount	79.2
Other income	1.0	Other income	20.8
	100.0		100.0
Salaries and wages	27.3	Salaries and wages	22.8
Interest paid on deposits	35.0	Interest paid on deposits	24.4
Other operating expenses	16.0	Other operating expenses	14.0
Total operating expenses	78.3	Total operating expenses	61.2
Operating profit	21.7	Operating profit	38.8
	100.0		100.0

Both banks have about the same amount of invested capital. Bank A earned 10.8 per cent thereon; Bank B, 19.3 per cent.

THE TIME-DEPOSIT RATIO FACTOR

The nature of the business of a bank is reflected by the relationship of time deposits to gross deposits. The effect of this relationship on profit factors is indicated by the table on the following page.

Items	Per Cent of Gross Income	
	Bank A No Time Deposits	Bank B 75% Time Deposits
Interest paid on deposits	11.4	46.5
Interest paid on borrowed money	2.0	0.4
Salaries and wages	26.2	13.3
Taxes	7.7	3.9
Other expenses	12.4	7.4
Net earnings	40.3	28.5
	100.0	100.0
Net earnings to invested capital	10.2	16.3
Gross earnings to loans and investments	5.6	6.2

These contrasted typical banks represent aggregates of seventeen banks in each group. Bank A is a typical commercial bank with no time deposits; Bank B has a ratio of time deposits to gross deposits of more than 75 per cent, hence it is a typical savings bank, with but a small amount of commercial account business.

A comparison of the expense ratios leads to this conclusion: The greater the ratio of time deposits to gross deposits, the greater is the interest-paid-on-deposits ratio and the smaller the operating-expense ratio.

From a standpoint of earnings to invested capital, however, the bank with the high ratio of time deposits to gross deposits reflects the greatest earning power, for two reasons:

1. The ratio of invested capital to deposits is considerably less in a time-deposit bank than in a demand-deposit bank.
2. Because of the low reserve requirements on time deposits, the gross earnings on loans and investments is higher in the time-deposit bank.

THE MATTER OF OVERHEAD

The majority of banks have a combination of both time and demand deposits. A bank organized and equipped primarily for commercial accounts has a greater overhead than one organized primarily for savings accounts. Such a commercial bank reaches a point of diminishing return on the net profits to gross-income factor after the ratio of time deposits to gross deposits reaches a certain point, for the interest-paid ratio becomes too great.

Banks with less than one-fourth of their gross deposits in the form of time deposits are the cheapest to operate.

When the ratio rises appreciably above 25 per cent, the interest-paid and operating costs rise to above 70 per cent of the gross income. However, when the ratio of time deposits to gross deposits rises to above 75 per cent, the net-operating-profit ratio again enlarges. The business is primarily a savings-account business, and the bank may be organized and equipped for such business at much lower cost.

THE ACTIVITY FACTOR

If the transactions per $1,000 of deposit balance exceed a certain number per month, the costs of handling these transactions will exceed the income derived.

The effects on operating profits of the transaction factor are shown by contrasting the results of a "quality account" bank with a very active account bank.

ACTIVITY INFLUENCES PROFITS

ITEMS	PER CENT OF GROSS INCOME	
	Bank A 5 Items per Mo. per $1,000	Bank B 75 Items per Mo. per $1,000
Interest paid on demand deposits	25.3	13.5
Salaries and wages	19.5	31.2
Other operating expenses	12.2	23.1
Total operating expenses	57.0	67.8
Operating profit	43.0	32.2
	100.0	100.0
Operating profit per $100 of deposit funds	$1.41	$1.06

Bank A has an average of five transactions per month per $1,000 of net deposit balances, while Bank B has seventy-five.

Bank A pays more interest to its depositors than Bank B, but this higher expense is far more than offset by lower "other operating expenses." As a result, Bank A reflects an operating profit per $100 of deposits 34 per cent greater than does Bank B.

The greater the activity per month per $1,000 of deposit volume, the greater will be the operating-expense ratios and the smaller the operating-profit ratio.

THE RATIO OF INVESTED CAPITAL TO DEPOSITS FACTOR

The ratio of invested capital to deposits is of importance to the stockholder, for, other things being equal, the smaller the ratio, the greater will be the earnings on invested capital. It is of importance to the depositor for, given equal liquidity of assets, the greater the ratio, the greater is the protection of deposits.

The ratio has been diminishing over a period of years. For all national banks it was above 100 per cent during the year periods of 1870–1876 but declined to below 20 per cent after 1925.

Other things being equal, if the ratio of one bank is considerably higher than that of some other bank, the stockholder of the low-ratio bank will derive a greater yield on his investment than the stockholder of the high-ratio bank.

From the standpoint of the depositor, it is not so much the size of this ratio which acts as real protection for his deposits as the degree of liquidity of assets. The ratio of one bank may be double that of another, but the bank with the lesser ratio may have an even greater amount of liquid assets per $1,000 of deposits than a bank with a ratio twice as great.

The effect of this ratio on net profits to invested capital is reflected by a contrast of the earning results of the aggregate of all member banks of the Federal Reserve System in certain districts for the year 1926.

District	Net Profits to Earning Assets	Net Profits to Invested Capital
Philadelphia	1.85	9.17
New York	1.62	10.73
Chicago	1.36	9.72

The net profit to earning assets of the Philadelphia District was the greatest of any of the twelve districts, but the net profit to invested capital was the greatest

in the New York District. The net profit to earning assets of Philadelphia was 14.2 per cent greater than for New York and 36 per cent greater than for Chicago, but the net profit to invested capital of Philadelphia was 14.5 per cent less than for New York and 5.7 per cent less than for Chicago.

CHAPTER III

SOUND POLICIES

"A sound policy is of more avail than elaborate equipment."

BY DEFINITION, "A policy is a settled or definite course or method adopted and followed by a government, institution, body, or individual."

Sound policies have as their base prudence or wisdom in the management of public or private affairs. They are the foundation upon which successful management rests. They are the fundamental side of the triangle of management, which consists of:

1. Sound policies.
2. An organization with ability to apply these policies.
3. A control which will insure that the organization apply these policies.

Policies must be sound; they must be definite; they must be understood by all; they must be uniformly applied by all.

The most important function of the directorate of a bank should consist of the formulation of sound and definite policies. The most important function of the chief executive of a bank should be the translation of these policies to the members of the organization, so that they are understood by all, and to administer the proper application of these policies by the organization.

The chief function of the comptroller should be to devise ways and means for determining the degree with which these policies are applied, any divergencies therefrom, and the results of application.

Policies should be formulated based upon facts and not upon opinions. When an institution's policies are based upon opinions rather than facts it will lose in competition with those institutions whose policies are based upon facts.

To insure sound management, policies must be (1) sound; (2) definite; (3) understood; (4) applied.

Major policies should be formulated by the board of directors in conjunction with the senior officers. Sub-policies and minor policies should be formulated by the officers and department heads.

Many of the policies of individual institutions are supposedly in accordance with general or territorial banking practices, but because they do conform to the then-established general practice does not necessarily mean that they are sound.

Majority opinion may be wrong. To give an example, one of the major reasons for so many bank failures in the agricultural regions—large items of "other real estate," high charge-offs, a large percentage of slow and doubtful loans—was the general policy of capital financing on the part of what should have been commercial banks. A clear distinction as to the objective of commercial banking as contrasted with

mortgage or investment banking, and an adherence to the distinction, would have avoided many of the difficulties.

In order that policies may be definite, they must be in written form. They must be so definite that misunderstandings of interpretation or application cannot arise.

One of the causes of friction between officers and the directors is ambiguity and misinterpretation of policies. Since the board of directors should hold the chief executive responsible for the application of policies, a wise chief executive is one who has such policies so definitely formulated in writing that there can be no misunderstanding. It will then be a relatively easy matter for him to transmit them to his officers so that there will be no misunderstanding on their part.

Since a policy is a definite course or method, it follows that policies are the basis of all of the functions of banking and so are important.

Policies may be grouped in accordance with the objective of a bank from the point of view of the depositor, the stockholder, the borrowing customer, or the personnel. The depositor and the borrowing customer are considered to comprise the community group.

The objective, from the point of view of the depositor, is an ably managed bank to insure protection of his funds, and rapid, accurate, and courteous service in the transaction of his business.

The objective, from the point of view of the stockholder, is an ably managed bank with sufficient earning power to yield an adequate return on his capital and to prevent any possibility of a loss in principal or an assessment.

The objective, from the point of view of the borrowing customer, is an ably managed loan function which will insure him availability of credit accommodation when entitled thereto.

The objective, from the point of view of the personnel, is an ably managed institution which will definitely recognize meritorious service and amply reward it financially, by fair treatment, and by opportunities for advancement.

The objective, from the point of view of all of these groups, is "an ably managed institution," hence the objective is identical.

Only a profitable institution can continue to protect the funds of its depositors, have ample funds available for worthy credit accommodations, give the personnel an opportunity to better itself, and reimburse the stockholder for his share of the invested capital funds.

Policies may be grouped in accordance with the banking functions necessary to carry on the business and to reach the objective, such as business development, operations, loan administration, control; and in connection with subdivision of work, coördination, organization, personnel administration.

A policy is sound if in its application it will reach an objective in conformity with the viewpoint of all of the groups interested in the welfare of the institution.

If it is sound only from the viewpoint of one group it might jeopardize the position of some other group. As for example, the depositors group might consider the disbursement of all of the profits to them in the form of interest as a splendid policy, but this would make the position of the stockholder untenable.

If policies are sound, as heretofore defined, it is next in order to determine whether or not they are applied, and to observe the results of the application.

A policy examination of a bank consists of a determination of methods and a study of their variation from sound policies, the responsibility of the individuals involved, and the results. A number of illustrative cases are presented.

RETURN ON INVESTMENT

No. 1 shows a contrast between two institutions over a five-year period from the point of view of the stockholder.

The stockholder in Bank A benefited by a regular cash dividend each year, and by an appreciation in the market value of the stock, so that, had the stock been sold five years later at the then market price, the annual rate of return on his original investment would have been 10.9 per cent.

1. RETURN ON INVESTMENTS

AVERAGE ANNUAL RATE	BANK A	BANK B
Net profits to invested capital	18.2%	3.2% loss
Dividends to capital	12.0%	1.6%
Yield at stock price paid five years ago	5.8%	0.6%
Appreciation in book value per share	4.2%	4.5% loss
Appreciation in stock market value	5.1%	5.3% loss
Special assessment on stock at price paid five years ago	.....	5.4%
Total annual rate of return per share of stock, based upon price paid five years ago and present market price, including dividend yield at price paid for stock five years ago	10.9%	10.1% loss

The stock of Bank B went off dividend at the end of the first year of the five-year period. Moreover, the stock was assessed and the market value declined, and as a result the loss on the original investment was at the rate of 10.1 per cent per year.

LOAN ADMINISTRATION

No. 2 tabulates the result of an examination of the assets of two institutions. Both were organized to transact a commercial banking business only. Bank C violated the objective of commercial banking and overextended capital financing. It had no credit department worthy of the name. Bank D adhered to the policy of commercial credits and had a well developed credit department.

2. LOAN ADMINISTRATION

PER CENT OF TOTAL ASSETS	BANK C	BANK D
Other real estate	3.2%	None
Slow loans	9.2%	1.80%
Doubtful loans	2.1%	0.20%
Loss	1.8%	0.06%
Total criticized assets	16.3%	2.06%

The net-losses history of Bank C was abnormally high during the prior five-year period and will continue to be high until the assets are "clean." Bank D had but a normal losses history during the prior five-year period, and no extraordinary losses are anticipated in the future from present assets.

PROFITABLENESS OF DEPOSIT ACCOUNTS

The presidents of both Bank E and Bank F asserted that their deposit-building policy was one of quality checking accounts only, and that each account should be profitable either through service charges or the maintenance of balances commensurate with activity. An analysis of all of the checking accounts revealed what is shown in the table. Bank F reflected a quality

3. PROFIT ON DEPOSITS

	BANK E	BANK F
Per cent of unprofitable accounts to total	53.2 %	18.6 %
Per cent of profitable accounts to total	46.8 %	81.4 %
Annual rate of loss on unprofitable accounts per $100	0.27%	0.32%
Annual rate of profit on profitable accounts per $100	1.23%	1.72%
Operating profit rate per $100 of all deposit funds	1.02%	1.68%

account condition; Bank E far from it. As a result, Bank F's operating-profit rate on all of its checking-account funds was 64.7 per cent higher than Bank E's.

INTEREST PAID ON TIME DEPOSITS

The average rate of income on earning assets of Bank G was almost identical with that of Bank H,

hence each could afford to pay about the same rate of interest on deposits. Bank G paid 3 per cent and Bank H, 4 per cent, with the effect on profits of the savings department shown in Table 4.

4. INTEREST ON TIME DEPOSITS

PER CENT OF GROSS INCOME	BANK G	BANK H
Interest paid on deposits	57.8%	80.2%
Operating expenses	18.9%	19.2%
Operating profit	23.3%	0.6%

With an operating-profit ratio of only 0.6 per cent, it is self-evident that Bank H could not afford to pay a 4 per cent rate, for such a small margin is more than offset by losses on loans and securities into which these deposit funds are converted.

CHAPTER IV

THE ORGANIZATION STRUCTURE

"Organization is the proper adjustment of the relationship between human beings in an effort to accomplish certain definite ends."

POLICIES determine the objective and the means to reach the objective, but they are unavailing unless the organization can effectively apply them.

Administration is the function concerned in the determination of policy.

Management is the function concerned in the execution of the policy.

Organization is the process of so combining the work of individuals, or groups, as to provide the best channels for the efficient, systematic, positive, and coördinated application of the available effort.

Administration defines the goal; management strives toward it; organization is the machine of management in its achievement of the ends determined by administration.

Practically all banks began as small units, and there are still many operated with but two or three full-time employees.

The founder and his original group determined the objective, and at the beginning but few individuals were engaged to aid in carrying out the objective. Regardless, however, of how small in number might be the personnel, if the objective was to undertake the

work of commercial banking, all of the functions of commercial banking came into existence at the beginning of the enterprise.

To illustrate this, chart "A" shows the various functions in existence in a two-person bank. The

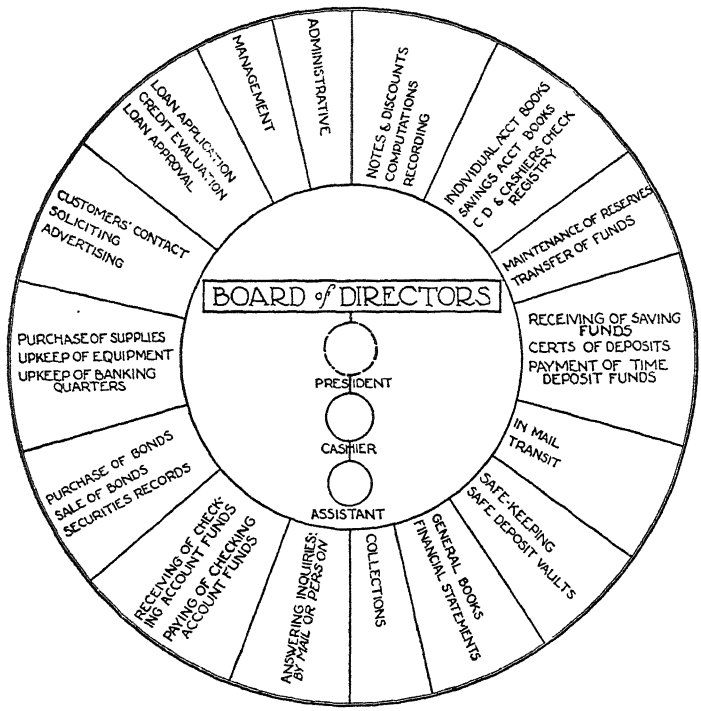


CHART "A"

president is not active in the operations, but functions more in the nature of a member of the board of directors. All of the work within the bank is handled by the cashier and his assistant. The cashier personally handles the major functions and his assistant,

the clerical functions. The cashier has already cast from himself some of the functions, hence a partial stage of subdivision of the routine work of the bank has arrived.

HOW FUNCTIONS ARE DIVIDED

Historically speaking, all functions represent successive devolutions of the function of administration. In the beginning, one individual performs all of the functions. Then he separates the functions and intrusts them to other hands. He usually retains for himself those functions in which he evidences the greatest degree of aptitude.

More so than in any other organized business, banking has evolved from a personal-service point of view. Bank customers intrust certain individuals with their funds and problems. In most instances, bank growth has been an individualistic growth. The various members of the organization developed around themselves a nucleus of customers, and by individual effort this following gradually became enlarged.

As this enlargement develops and the business grows, devolution within the functions becomes necessary, and additional personnel is engaged to handle the work of subfunctions. Work is more and more subdivided. This program of subdivision of work is usually, though in many instances unconsciously, accompanied by coördination. Coördination is the control of division.

As the volume of business increases, subdivision of work becomes more minute and more personnel is added, until a point is reached where real organizing ability must be applied; otherwise the structure will be in such a condition as to make it difficult, if not impossible, for the organization effectively to apply the policies formulated by administration.

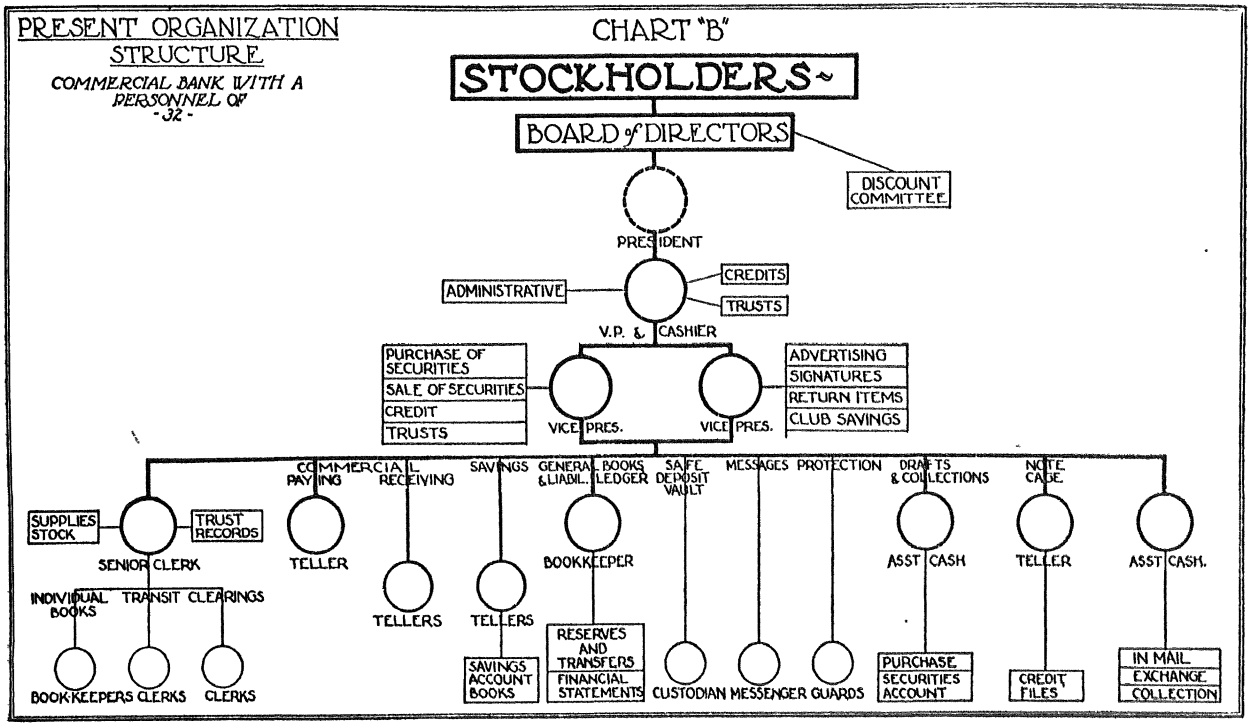
ACTIVITIES ILLOGICALLY GROUPED

Chart "B" shows the present organization structure of a commercial bank which commenced as a two-person institution and finally reached a stage of business growth which required a personnel of thirty-two. It reflects the result of the individualistic casting off of functions without any defined plan or organization forethought. It reflects a most illogical grouping of activities and a hazy conception of duties, authorities, and responsibilities.

Illogical structures of this and similar natures are still found in a great many banks. The fault does not lie exclusively with the smaller institutions; it extends to many of the large institutions with hundreds of personnel. The larger the institution, the more exaggerated is the effect.

The two major groups of reasons for this weakness are:

1. The individualistic development of the banking business.



This is how the work is divided among thirty-two employees in one bank. The division of duties is not the best, due probably to the fact that the officers are so burdened with their own routine that they do not take time to consider the institution as a whole.

2. The lack of ability or time of individual officers to visualize the situation as a whole; to take an analytical inventory of a situation at a given moment and develop a sound plan therefrom.

In many banks the officers are so burdened with their own specialized work as to make time unavailable for constructive planning on the entire institutional problems.

Even in the large progressive banks, the development of technical functions, as divorced from operative functions, is of but recent origin. Centralized credit, personnel, business development, planning and systems, cost analysis and control, and so on, have not as yet reached that stage of development in most banks whereby real benefits accrue.

In many instances, organizing ability is looked upon simply as the application of common sense, and many individuals would resent the suggestion that they cannot organize. The capacity for organizing, however, is not wholly common sense any more than common sense is common.

Many managers are confident that, though they have failings, these certainly do not lie in the field of organization. As a result, bank organizations have suffered either neglect or distortion. They have either been allowed to grow wild or they have been twisted and turned to suit the particular requirements of the moment.

One of the basic problems found in many banking institutions consists of the realignment of the organization structure along sound lines and in accordance with proved organization principles, so that *intensive* management can be applied and the organization grow along logical lines as the business grows, that it may perpetuate itself and in the final result safeguard the net profits of the institution.

CHAPTER V

ORGANIZATION ANALYSIS

IN THE development of sound organization structures two major groups of operations are necessary: (1) analysis and (2) synthesis.

In proportion as analysis is keen and correct, and synthesis is sure and unerring, so will be the resultant efficiency.

During periods in the past when profit margins were large, many institutions neglected careful analysis. Wastes were great and many opportunities for profit were lost, but they knew nothing about them, and cared less, for profits were up to expectations.

However, when banks came face to face with the problem of *diminishing* profit ratios, the era of analysis began. As a result, some form of analysis is now in use in practically all progressive banks.

To date, the function of analysis as applied in banking has not extended intensively into factors other than credit, operating expenses, systems, procedures, and unprofitable services.

Organization analysis is still in its infancy.

ORGANIZATION ANALYSIS

Organization analysis involves a thorough study of the elements enumerated on the following page:

1. The nature of the business transacted.
2. The work of personnel involved in transacting that business.
3. The methods used in transacting that business.
4. A study of the work performed by each individual.
5. A study of the relationship of the work of each individual with the work of other individuals.
6. The relationship which exists between groups of work.
7. A study of the scope of each group.
8. A study of the interrelationships which exist among the groups.
9. A study of the lines of authority and responsibility among the positions the occupants of which control the activities of the groups.
10. A study of the capabilities and limitations as to various types of work which can be effectively performed by each individual.
11. A study of the technical capability of each individual as distinguished from administrative or executive ability.

The findings from such an analysis can best be visualized by the use of organization charts. Three types of charts are usually applied, or all three types pictured on one chart.

One type shows the lines of authority, responsibility, and supervision. Another shows the description of work. The third shows the flow of work.

ORGANIZATION SYNTHESIS

The objective of synthesis is to take the findings of analysis and reconstruct therefrom elements of greater value and effectiveness. This new structure, to reach the greatest benefits, must conform to sound organization principles. A number of these principles are so elementary that they are realized and appreciated by the majority of individuals, but there is a *lack of application.*

An enumeration of five organization principles follows:

1. Work should be so subdivided that no higher priced individual performs work which a lower priced individual can perform.

   Analyze the work of any officer in an average bank and note the extreme divergency from this principle.

   A manager has two major functions: (*a*) to supervise (successful operation depends upon good supervision), and (*b*) to think. Progress depends upon sound thinking; the higher the managerial position, the more important it is to reserve time for thinking.

2. There must be a clear definition of authority and responsibility.

   There should be no authority without responsibility and no responsibility without authority. The authority to issue an order must carry with

it the responsibility to see that it is properly executed. The big point is to place responsibility so squarely where it belongs that not only will initiative and dignity be built up, but also that the old game of "passing the buck" cannot be played.

3. The proper individual must be selected for each supervisory position by the person next higher in authority, and his duties and responsibilities clearly outlined to him.

   There is no relationship between technical ability and supervisory or executive ability. A very able technician may be a very poor executive. Before an individual can be selected as a group supervisor, the "job" must be definitely outlined and a specialist in that job selected. If individuals are added to the organization primarily because of general knowledge and with no specific intensive qualifications for an essential job, the organization will develop itself into "a little of everything, but not much of anything," and vitally important functions of work will suffer.

4. An understudy must be provided for each supervisory position. Each individual should act in a triple capacity. He should perform his assigned work; study to become familiar with the work of the position next higher; teach his

work to some one of the next lower rank. This principle creates permanency of organization.

5. Executive control records should be prepared which will measure the effectiveness of group operations and which will give the chief executive facts from which the managerial ability of the heads of the various groups can be determined.

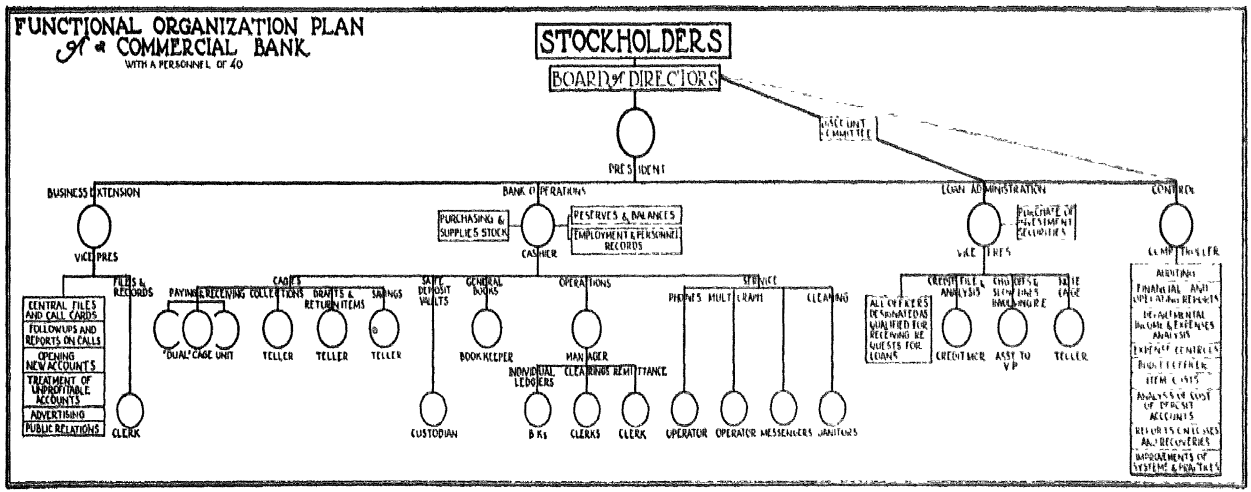
FUNCTIONAL ORGANIZATION PLANS

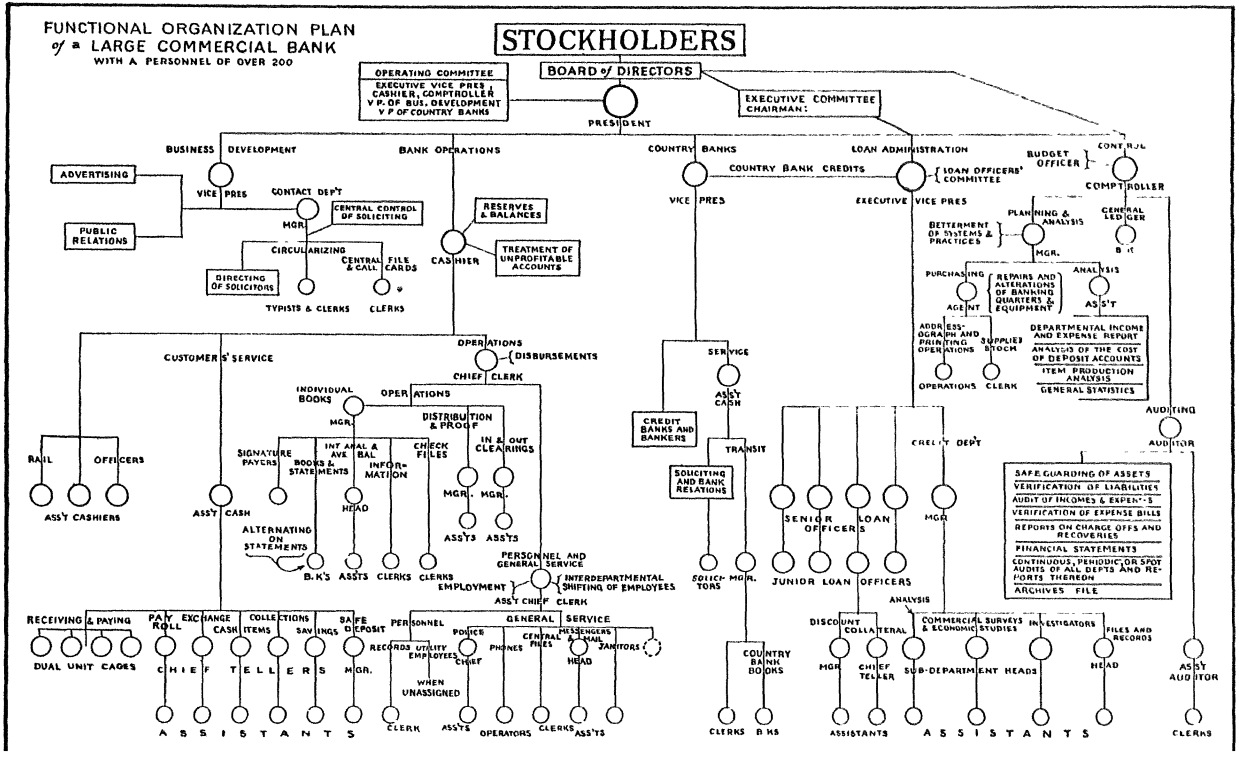
The following steps are necessary in the development of functional organization plans:

1. The logical segregation of similar activities into unified groups.
2. A clear definition of the scope of each of these groups.
3. A clear definition of the interrelationship which exists among these groups.
4. Definite lines of authority and responsibility among the positions, the occupants of which control the several activities or functions.

ILLUSTRATIONS OF PLANS

The accompanying charts illustrate functional organization plans of purely commercial banks which have proved ideal for the conditions found. There is no universal ideal plan, however. A plan may be ideal for one bank, but if the same plan were applied to another bank the results might be disastrous.


FUNCTIONAL ORGANIZATION PLAN
of a COMMERCIAL BANK
WITH A PERSONNEL OF 40
STOCKHOLDERS
BOARD of DIRECTORS
AUDIT COMMITTEE
PRESIDENT
BUSINESS EXTENSION
VICE PRES
CENTRAL FILES AND CALL CARDS
FOLLOWUPS AND REPORTS ON CALLS
OPENING NEW ACCOUNTS
TREATMENT OF UNPROFITABLE ACCOUNTS
ADVERTISING
PUBLIC RELATIONS
FILES & RECORDS
CLERK
BANK OPERATIONS
PURCHASING & SUPPLIES STOCK
RESERVES & BALANCES
EMPLOYMENT & PERSONNEL RECORDS
CASHIER
CASES
PAYING
RECEIVING
DUAL CASE UNIT
COLLECTIONS
TELLER
DRAFTS & RETURN ITEMS
TELLER
SAVINGS
TELLER
SAFE DEPOSIT VAULTS
CUSTODIAN
GENERAL BOOKS
BOOKKEEPER
OPERATIONS
MANAGER
INDIVIDUAL LEDGERS
BKs
CLEARINGS
CLERKS
REMITTANCE
CLERK
SERVICE
PHONES
MULT
GRAMS
CLEARING
OPERATOR
OPERATOR
MESSENGERS
JANITORS
LOAN ADMINISTRATION
PURCHASE OF INVESTMENT SECURITIES
VICE PRES
ALL OFFICERS DESIGNATED AS QUALIFIED FOR RECEIVING REQUESTS FOR LOANS
CREDIT FILE & ANALYSIS
CREDITOR
CHECKING & SAVINGS BOOKKEEPING
ASST TO V P
SAFE CAGE
TELLER
CONTROL
COMPTROLLER
ACCOUNTS
FINANCIAL AND OPERATING REPORTS
DEPARTMENTAL INCOME & EXPENSES ANALYSIS
EXPENSE CENTERS
BUDGET CONTROL
ITEM COSTS
ANALYSIS OF COST OF PROFIT ACCOUNTS
REPORTS ON LOSSES AND RECOVERIES
IMPROVEMENTS OF SYSTEMS & PROCEDURES


FUNCTIONAL ORGANIZATION PLAN
of a LARGE COMMERCIAL BANK
WITH A PERSONNEL OF OVER 200
STOCKHOLDERS
OPERATING COMMITTEE
EXECUTIVE VICE PRES., CASHIER, COMPTROLLER
V.P. OF BUS. DEVELOPMENT
V.P. OF COUNTRY BANKS
BOARD of DIRECTORS
EXECUTIVE COMMITTEE
CHAIRMAN:
PRESIDENT
BUSINESS DEVELOPMENT
VICE PRES
ADVERTISING
PUBLIC RELATIONS
CONTACT DEPT
MGR
CENTRAL CONTROL OF SOLICITING
CIRCULARIZING
DIRECTING OF SOLICITORS
CENTRAL FILE & CALL CARDS
TYPISTS & CLERKS
CLERKS
BANK OPERATIONS
CASHIER
RESERVES & BALANCES
TREATMENT OF UNPROFITABLE ACCOUNTS
COUNTRY BANKS
VICE PRES
COUNTRY BANK CREDITS
LOAN ADMINISTRATION
LOAN OFFICERS' COMMITTEE
EXECUTIVE VICE PRES
BUDGET OFFICER
CONTROL
COMPTROLLER
BETTERMENT OF SYSTEMS & PRACTICES
PLANNING & ANALYSIS
MGR.
GENERAL LEDGER
PURCHASING AGENT
REPAIRS AND ALTERATIONS OF BANKING QUARTERS & EQUIPMENT
ANALYSIS
ASS'T
ADDRESSOGRAPH AND PRINTING OPERATIONS
SUPPLIES ROOM
CLERK
DEPARTMENTAL INCOME AND EXPENSE REPORT
ANALYSIS OF THE COST OF DEPOSIT ACCOUNTS
ITEM PRODUCTION ANALYSIS
GENERAL STATISTICS
CUSTOMER'S SERVICE
OPERATIONS
DISBURSEMENTS
CHIEF CLERK
INDIVIDUAL BOOKS
OPERATIONS
MGR.
DISTRIBUTION & PROOF
IN & OUT CLEARINGS
SIGNATURE PAYERS
BOOKS & STATEMENTS
INT. ANAL & AVE BAL.
INFORMATION
CHECK FILES
MGR.
MGR.
ASS'TS
ASS'TS
HEAD
RAIL
OFFICERS
ASS'T CASHIERS
ASS'T CASH
ALTERNATING ON STATEMENTS
B.K.'S
ASS'TS
CLERKS
CLERKS
PERSONNEL AND GENERAL SERVICE
EMPLOYMENT
INTERDEPARTMENTAL SHIFTING OF EMPLOYEES
ASS'T CHIEF CLERK
SERVICE
ASS'T CASH
TRANSIT
CREDIT BANKS AND BANKERS
SOLICITING AND BANK RELATIONS
SOLICITORS
MGR.
CLERKS
B.K.S
COUNTRY BANK BOOKS
CREDIT DEPT
SENIOR OFFICERS
LOAN OFFICERS
JUNIOR LOAN OFFICERS
MGR
ANALYSIS
DISCOUNT
COLLATERAL
MGR
CHIEF TELLER
ASSISTANTS
COMMERCIAL SURVEYS & ECONOMIC STUDIES
SUB-DEPARTMENT HEADS
INVESTIGATORS
HEAD
FILES AND RECORDS
ASSISTANTS
AUDITING
AUDITOR
SAFEGUARDING OF ASSETS
VERIFICATION OF LIABILITIES
AUDIT OF INCOMES & EXPENSES
VERIFICATION OF EXPENSE BILLS
REPORTS ON CHARGE OFFS AND RECOVERIES
FINANCIAL STATEMENTS
CONTINUOUS, PERIODIC, OR SPOT AUDITS OF ALL DEPTS AND REPORTS THEREON
ARCHIVES FILE
ASS'T AUDITOR
CLERKS
RECEIVING & PAYING
DUAL UNIT CAGES
PAY ROLL
EXCHANGE
CASH
COLLECTIONS
ITEMS
SAVINGS
SAFE DEPOSIT
CHIEF TELLERS
MGR.
ASSISTANTS
PERSONNEL
RECORDS
UTILITY EMPLOYEES
WHEN UNASSIGNED
CLERK
GENERAL SERVICE
POLICE
CHIEF
PHONES
CENTRAL FILES
MESSENGERS & MAIL
HEAD
JANITORS
ASS'TS
OPERATORS
CLERKS
ASS'TS

An intensive analysis of all of the factors involved is necessary in each instance and an ideal plan must be designed to meet the conditions. In principle, there is no difference between the chart shown of the small bank and that of the large one.

In the case of the large bank, the volume of work handled in each "key" position is so great as to require all of the time of the occupant; in the smaller banks the plan is to have some one *major* in the work of each "key" position and be held strictly accountable therefore, and if the individual has other time available, to *minor* in some other position.

In the illustrations shown, the work is divided into four major groups. The work within each group is interrelated and of the same functional type.

1. *Business development.* This relates to the extension of profitable services of the institution.
2. *Bank operations.* This relates to the performance necessary to the internal handling and recording of transactions and the serving of the customers in accordance with the best policies of customers' relationship.
3. *Loan administration.* This relates to the effective conversion of liability funds (deposits and invested capital) into earning assets, and the effective administration of these earning assets.
4. *Control.* This relates to the safeguarding of the assets and the determination of facts which will

reflect the results of the foregoing activities and serve as a measurement of managerial ability.

In the case of the large commercial bank, the country-bank activities have developed to such a large scale that the grouping of these activities into a separate, major function became necessary. We therefore have the function, "country banks," which relates to the development of profitable country-bank accounts, the internal handling of the activities involved, and the effective servicing of these accounts.

CHAPTER VI

PERSONNEL ADMINISTRATION

MORE than in any other organized business, the success of a bank is dependent upon the character and ability of its personnel. The human element enters very largely into the net-profits equation.

The objective of personnel administration is to select and develop individuals so that there is ever present sufficient ability to fill ideally every position called for in an ideal organization plan.

One test of the ability of an organization is applied through the taking of an inventory of the capabilities of the present members and thereby determining whether or not there is sufficient capability available to fill effectively all of the "key" positions called for in an ideal organization plan.

The chief executive should have an ideal plan before him and institute personnel administration policies of a nature which will select, and train, individuals in such a manner that they will develop characteristics which will make them capable of filling effectively all of the positions called for in the ideal plan.

PERSONNEL ANALYSIS

In order to apply the acid test as to the personnel situation, the following types of analysis should be applied:

1. Classify the work of the institution into groups of like job value.
2. Place the various officers and employees into these groups according to the value of the work performed by each individual.
3. Set up standards of value for each group of work.
4. Indicate the variations of salaries from these standard ranges.
5. Apply a seasoning factor to each group of work.
6. Determine the degree of seasoning of the organization.

The practical application of this type of analysis, applied to the operations of a commercial bank with a personnel of 126 individuals, is shown on the chart given on pages 72 and 73.

CLASSIFICATION OF WORK

The management and operative activities of every institution are composed of a number of typical jobs. The problem is one of identifying these jobs, relating them to each other, and classifying them according to their importance. Such a classification affords the only means for definitely analyzing a personnel situation and through which uniformity of compensation can be attained for like work. It simplifies the task of selecting and placing employees, determining courses of training and promotion, and budgeting labor requirements.

The subdivisions of the clerical groups are dependent upon (1) training and experience, (2) personal qualifications, and (3) educational requirements necessary to qualify for the work involved in each group.

The supervisory and specialists groups are determined by rating the work of the department supervised and the importance and scope of the technical work performed by specialists. The rating scale gives weight to various factors, such as technique of work, size of department, relations with other departments, management problems, importance of the jobs in the department, and so forth.

After the work has been thus classified and grouped, the individuals are placed in the various groups according to the classification or rating given to the work which they perform.

The salary per month and the date of employment are shown.

SALARY RATES

Certain fundamental principles must be applied in order to obtain equity and uniformity as to salary rates. These are: (1) Basic rates of compensation should be uniform for the same class of work. (2) Basic rates of compensation should be relatively right for the various classes of work. (3) The salary ranges should provide for an absolute minimum, an absolute maximum, and intermediate salary rates.

The minimum salary should be that compensation to which an employee is entitled immediately upon his engagement. A lower rate than the minimum will usually not attract employees of the right caliber for the job. The maximum salary should represent the limit of usefulness which an employee, no matter how experienced he is, may reach in a given position. The intermediate rates should make possible a regular progression from a minimum to a maximum, as the employee's proficiency, and hence the value of his services, increase.

The "standard range," shown on the illustration, is based upon the above factors, together with an analysis of the wage situation within the city where the institution is located. The minimum is set sufficiently high to attract the "cream" rather than the average or the below average. The maximum of one group becomes the minimum of the next higher group. Individual variations from the standard salaries are shown clearly by this type of analysis, and in the analysis each case is thoroughly studied to determine what policy or method has permitted this variation to occur.

One of the chief causes of variations is the annual raise policy in effect in so many banks. Under this method the salaries of practically all employees are increased once a year and at the same time. As a result, the salary rate of many employees who have been with the institution a great length of time, but

whose work has not changed, automatically become forced out of line with the value of the work performed.

In the illustration the standard salary range for specialist and supervisory classes is not shown. These groups are represented largely by officers, and in evaluating their salaries other factors besides the value of the technical work which they perform must be taken into consideration. As an example, the value of the technical work of two loaning officers may be identical, but one officer may have developed far more business than the other and hence is of greater value to the institution. In determining his value differential, caused by business-development work, care must be exercised, however, in determining the *real* value of the accounts developed by him and not the size of the balances only. Experience has shown that a certain percentage of the personnel, on each class of work, to the total personnel must have performed that specific work for a certain length of time and have become proficient therein, in order that the work be performed in an effective manner.

SEASONING FACTOR

As shown on the chart, the seasoning factor is expressed as a percentage of "seasoned" employees to total employees in each class. Experience has also shown that even technically poor systems and procedures work well when the seasoning factor is high;

Classification	Administration		Loan		Bank Operations														Audit		Total Employees	Salary Range		Per Cent Seasoned
					Comm'cial Tellers		Book-keeping		Distri-bution		Transit		Savings		Messenger Mail		Miscella-neous					Present	Standard	
	Sal.	Date	Sal.	Date	Sal.	Date	Sal.	Date	Sal.	Date	Sal.	Date	Sal.	Date	Sal.	Date	Sal.	Date	Sal.	Date				
1. Non-Clerical.....																	*200	3–15			2	125–200		100 0
a. Telephones																	*125	6–26						
b. Police	135	12–17			125	3–20											120	3–22			5	100–135		80 0
					110	2–25											100	1–27						
c. Maintenance																	100	1–26			1			100 0
2. Apprentice.....							* 60	9–26	* 50	6–25					45	7–27								
							* 75	10–27	* 55	2–27					50	3–26								
							60	2–26	* 50	9–26					45	7–26								
							60	8–26	50	11–25					40	11–27					18	40–80	50–75	72 3
							* 55	10–27	75	8–27					80	9–21								
							80	8–23	* 60	6–26														
									80	11–26														
3. Junior Clerical.....							* 85	8–27	105	1–26	*100	7–27	70	6–27	90	10–25	*100	1–27						
							* 65	1–26	80	7–27	105	8–26	85	3–26	75	1–27								
							* 90	5–26	85	8–26	*110	3–25	*110	2–25										
							* 75	1–27	70	9–27	*105	1–26	90	1–27										
							100	3–24	95	3–27	* 95	1–27												
							60	8–26	100	5–27	100	6–26									31	60–110	75–95	54.7
							80	5–26			* 90	3–27												
											* 75	9–26												
											* 80	12–25												
											90	7–26												
											* 85	1–27												
4. Senior Clerical.....	*150	10–21	*135	4–26			* 85	7–26	110	2–26	*100	1–27	*130	8–25			*150	3–24	150	3–21				
			175	3–23			*110	5–20	135	6–25	125	8–26	135	9–25					135	5–23				
			200	1–21			135	6–27	125	8–20	110	10–25												
							90	10–26	130	8–25	*100	7–26												
							100	8–26	130	9–25	*105	1–27												
							100	11–26	110	8–26	115	9–26									35	85–200	95–125	48.6
							90	8–26	105	1–27														
							110	5–23	90	3–27														
							95	6–24																
							* 95	4–27																
							* 85	5–27																
							100	9–26																

* Denotes female employees.

Classification	Administration		Loan		Bank Operations														Audit		Total Employees	Salary Range		Per Cent Seasoned
					Comm'cial Tellers		Book-keeping		Distri-bution		Transit		Savings		Messenger Mail		Miscella-neous							
	Sal.	Date	Sal.	Date	Sal.	Date	Sal.	Date	Sal.	Date	Sal.	Date	Sal.	Date	Sal.	Date	Sal.	Date	Sal.	Date		Present	Standard	
5. Major Clerical	*200	9-20	250	3-15			155	8-19	175	5-20	135	8-23							200	7-17				
	*200	10-13	*175	10-26			160	5-18											225	5 18	10	135 250	125-250	90 0
6. Tellers																								
a. Junior					100	4-25							105	2-27										
					100	6-26							130	4-21										
					125	10-26							125	6-23										
					110	6-27																		
					155	6-22																		
					90	6-27															14	90-230	125-175	78 6
					155	4-20																		
					135	11-25																		
					135	4-16																		
					190	3-15																		
					230	8-13																		
b. Senior			275	2-19	300	12-14							150	8-25										
			300	1-17	250	6-20							200	3-21							7	150 300	175-300	100 0
					225	8-20																		
7. Specialists			165	5-27															400	1 23	3	165-400		66 7
a. Junior			250	8-25																				
b. Senior	650	9-23	833	1-20																	2	650 833		100 0
c. Major			1000	7-18																	1	1000		100.0
8. Supervisory																								
a. Junior							300	3-17	225	3-20	275	1-19	250	8-15							4	225-300		100 0
b. Senior					333	6-11															1	333-		100 0
c. Major	600	6-17																			1	600-		100 0
d. Executive	1250	3-12																			1	1250-		100.0
TOTALS																					126			73.6

* Denotes female employees.

technically perfect systems and procedures have been known to fail when the seasoning factor is low.

Unseasoned organizations are accompanied by low volume of work, many errors, and interdepartmental difficulties. The seasoning factor, therefore, discloses to a large extent the degree of smoothness with which a department operates and what can be anticipated as to cost of work and quality of work.

The objective of personnel administration is to increase the seasoning factor. The greater the importance and value of a class of work, the greater should be the seasoning factor. In the illustration it will be observed that the seasoning factor of "Junior Clerical" is less than that of "Apprentice," and that of "Senior Clerical" is less than that of "Junior Clerical," when the reverse should be true. This unsound salary policy was one major cause which produced this situation.

CHAPTER VII

DEVELOPMENT OF PERSONNEL

MANY commercial business institutions are organized for the sole purpose of taking advantage of a temporary business situation, and others for but a relatively short time-cycle of operations. The life expectancy of many classes of commercial business is short.

Banks, however, are founded with perpetuity as their objective. Arguments to the public for the use of certain bank services are on the basis of the perpetuating condition of the banking corporation.

The major problem of perpetuating any individual bank lies in the development of methods, and their application, to perpetuate the organization. A program of effective replacement of personnel is of vital importance.

The general policy of the majority of banks is to promote from the ranks. This is a sound and splendid policy, but in many instances it cannot be applied because of a lack of definite methods with which to develop personnel *in advance* of the actual demand.

In many banks there is an undercurrent of complaint on the part of the employees that the bank "imports" too many outsiders to fill choice positions. In some instances this complaint is justified; in most instances

it is not. Usually the management does take an inventory of the capabilities of its employees and does not find material with the necessary qualifications. Indirectly this is, however, the fault of the management, for it is the duty of the management to institute methods which will develop the required capabilities within the members of its own organization.

The problem divides itself into three parts:

1. The selection of personnel with sufficient latent capabilitity as to make advancement possible.
2. The training of personnel so as to develop this latent ability along the right channels.
3. The establishment of sound direct and indirect incentives which will foster the development of the latent capabilities.

SELECTION OF PERSONNEL

A recognition of the importance placed upon the selection of personnel is witnessed by the rapid development of personnel departments and specialists in interviewing and engaging help in large banks, and the tendency also of centering this work in one individual in the smaller banks.

It is realized that the proper selection of personnel will make possible:

1. Low rates of turnover.
2. Low costs per transaction.
3. High quality of work.

4. Abundance of capability for promotions.
5. High degree of coöperation.
6. Splendid customers' service.

Since this is the objective of any banking organization, the function of personnel selection should be recognized as a function of major importance rather than an undeveloped and scarcely recognized function as is still the case in many banks.

From a practical standpoint, the two major questions to be answered in the consideration of prospective employees are:

1. Has this individual the experience, ability, and personal characteristics necessary to handle effectively the work of the position under direct consideration?
2. Has the individual personal characteristics and dormant abilities which, if properly fostered and developed, will qualify him for the position of next higher rank?

In an endeavor to aid in answering these questions many methods are in use, from simply the application of judgment on the part of the interviewer to elaborate trait and psychological tests; from utmost simplicity to elaborate theories and fads. Unfortunately, from the point of view of personnel officers, no one has as yet devised a formula, slide rule, or machine which will evaluate all of the factors which enter into the answers of the two questions in a certain and practical manner.

What can be done, and is being done in many instances in a practical and result-producing manner, is to make use of the following points:

1. Job analysis, whereby the various duties and activities are carefully studied and specified and a detailed description prepared of the work to be performed by the prospective employee.
2. A study of the history of the most capable employees now performing such work, their education, previous experience, personal characteristics, and so on.

For example, the apprentice group of work is minor routine clerical work such as operating an adding machine, simple typing, sorting of items, and other tasks requiring little or no previous experience. For this work the specifications are:

Education: From grammar school to two years of high school.

Experience: None.

Qualifications: Mental alertness, willingness.

The senior clerical group of work is work of a nature requiring skill, accuracy, and experience, such as bookkeeping, major stenographic work, responsible verification work. For this work the specifications are:

Education: Graduation from high school.

Experience: Two or more years of clerical work.

Qualifications: Reliability, accuracy, willingness, speed.

The specifications for junior tellers are:

Education: Graduation from high school.

Experience: Two or more years of clerical work in a bank.

Qualifications: Tact in meeting customers, judgment, reliability, accuracy, speed.

TRAINING OF PERSONNEL

Within the banks themselves, training methods as to specific jobs have not reached the stage of development found in many industrial corporations. Training on specific jobs is still left largely to the various department heads and supervisors. On the other hand, however, more general educational work is now available and is applied than in any other class of business.

The American Institute of Banking is the outstanding example of association leadership in the educational field. It can be safely said that in no other field of business can be found an organization similar to the A. I. B., with its local chapter in every section of the country and with many thousands of students enrolled.

Bankers as a whole encourage their employees to avail themselves of these splendid educational facilities. This type of educational training, together with organized classes in the banks themselves under the leadership of officers, makes possible a practical general educational plan.

The more specific problem encountered in banks is the training of employees in specific jobs. Many of these are of a routine nature, and a training in the mechanics of the job is important. The ideal plan is the three-position plan. Under this plan each member of the organization acts in a triple capacity:

1. Performs the work of his or her position.
2. Studies the work of the position next higher, or next in line of promotion.
3. Teaches and trains some one in a position next lower in the work of the present position.

An adoption of this plan extends the understudy principle throughout the entire institution.

From a practical standpoint, training on the job is left largely to department heads, their immediate assistants, or to "key" employees. This plan works well provided the individual selected to do the teaching and training has a natural aptitude for such work. But often star performers are not good teachers. In far too many instances a new employee is thrown on his own resources, especially if he is supposed to have had experience in similar work in some other bank.

An investigation as to criticisms on new employees made by department heads to the personnel officer indicates that in many instances the fault did not lie so much with the employee as with the absence of definite and able instruction methods. As an aid in instructing employees, a number of large banks have

prepared detailed instruction manuals for each clerical job in the bank.

A good plan to follow is for the personnel officer or one of his assistants personally to see that instructions for new employees are arranged for by the department heads, and that they are applied. Initiative as to this work should not be left entirely to department heads. It is an important part of the personnel function.

Since the clerical work in banks divides itself into logical groups, from apprentice clerical to major clerical, the general training and promotion program can be made to follow definite stages of progress.

In the training program, special aptitude for work beyond the specific job should be carefully observed and reported to the personnel officer. It is a rather frequent experience that employees and junior officers rated as not above the average in one organization leave that organization and become outstanding successes in other organizations. This is primarily due to the lack of realization on the part of some organizations of the latent abilities of its personnel, and because no opportunity was given to foster these abilities.

INCENTIVES

An incentive is that which incites, or tends to incite, action. Incentives play a most important rôle in human affairs.

Incentives may be positive in the form of rewards, or negative in the form of penalties or the withholding of rewards.

Incentives divide themselves into two groups, direct and indirect. Direct incentives are usually monetary rewards in the form of basic salaries and bonuses. Indirect incentives take the form of continuity of employment, physical working conditions, fair treatment, opportunities for advancement, and so on.

Since in the majority of banks "salaries and wages" is, next to "interest paid on deposits," the largest expense item, banks have always recognized the existence of the salary problem. The problem of making remuneration an incentive is a major one in bank administration, yet few banks have attempted to find a scientific and enduring solution thereof.

The method of job analysis, which has been used with success in many business establishments for the evaluation of the worth of jobs, has been applied in but few banks, yet it is the most definite and practical method as yet devised for an analysis and control of the salary problem. There is a strong need for the adoption of methods which have to do with the standardization and administration of salaries.

A great deal of routine and repetitive work in banks can be accurately measured on a basis of quantity and quality of production. In most banks, as yet, no production records of transactions are kept, and in

the majority of instances where they are gathered, the data is not applied on the personnel records or utilized as a basis for salary adjustments and promotions.

As for example, in one bank the volume of work as between individual bookkeepers varied tremendously, three of the highest paid bookkeepers handling a volume below the average of the department. Two of the lowest paid bookkeepers handled the greatest volume in the department.

The salary policy was one of seniority and length of service. A uniform salary increase was given to each bookkeeper on the first of each year. The highest paid bookkeepers had the longest service records, and although their salaries were about 30 per cent greater than those of newer bookkeepers, their volume of work performed was from 20 to 40 per cent less. Is there any wonder, therefore, that this department had a large turnover and an undercurrent of unrest among its employees?

The technical value of practically all jobs in a bank can be determined by job analysis. The worth of an employee beyond this should also be definitely recognized. Many can make, and do make, valuable suggestions for improvement of methods and reduction of costs. To encourage this, definite rewards should be disbursed.

Some employees do, and all should be induced to apply their efforts beyond the technical routine of

their jobs. Results from building sound customers' relations and the origination of new business should be definitely recognized and rewarded.

If all members of the organization are trained to think beyond their jobs, to think in terms of new business, and to act as business builders, then the so-called new-business problem is solved. Definite rewards should be applied to create this method of thought and to apply it. A number of banks now set aside a part of their earnings to be distributed to those members of the organization with a record of extraordinary work beyond their jobs as a basis for the division.

Banks have gone far on profit-sharing plans, bonuses, and pension plans as additional rewards beyond salaries. Most profit-sharing and bonus-plan distributions are not, however, linked with a definite measurement of the value of the individual as to results produced, and hence they lose their real effects as incentives. The distribution is made horizontal rather than on measured individual merits. Whenever possible, individual results should be measured and evaluated, and salaries and special rewards based upon comparative results.

The rapid growth of banking institutions has made promotion incentives far more applicable than during previous years. Paths of promotion have become better defined and are traveled more rapidly by well qualified employees. Years ago one naturally expected, and usually found, the higher positions occupied by

middle-aged and older men. Now many important positions are held by relatively youthful individuals. This phenomenon, however, is not confined to the banking field, for we are living in an age of the young man in business.

ABILITY RULE FOR PROMOTIONS

In our progressive banks the seniority rule is gradually being supplanted by the ability rule, and this aids greatly in the solution of the problem of perpetuating the organization's ability.

Negative incentives still to be found in many banks are:

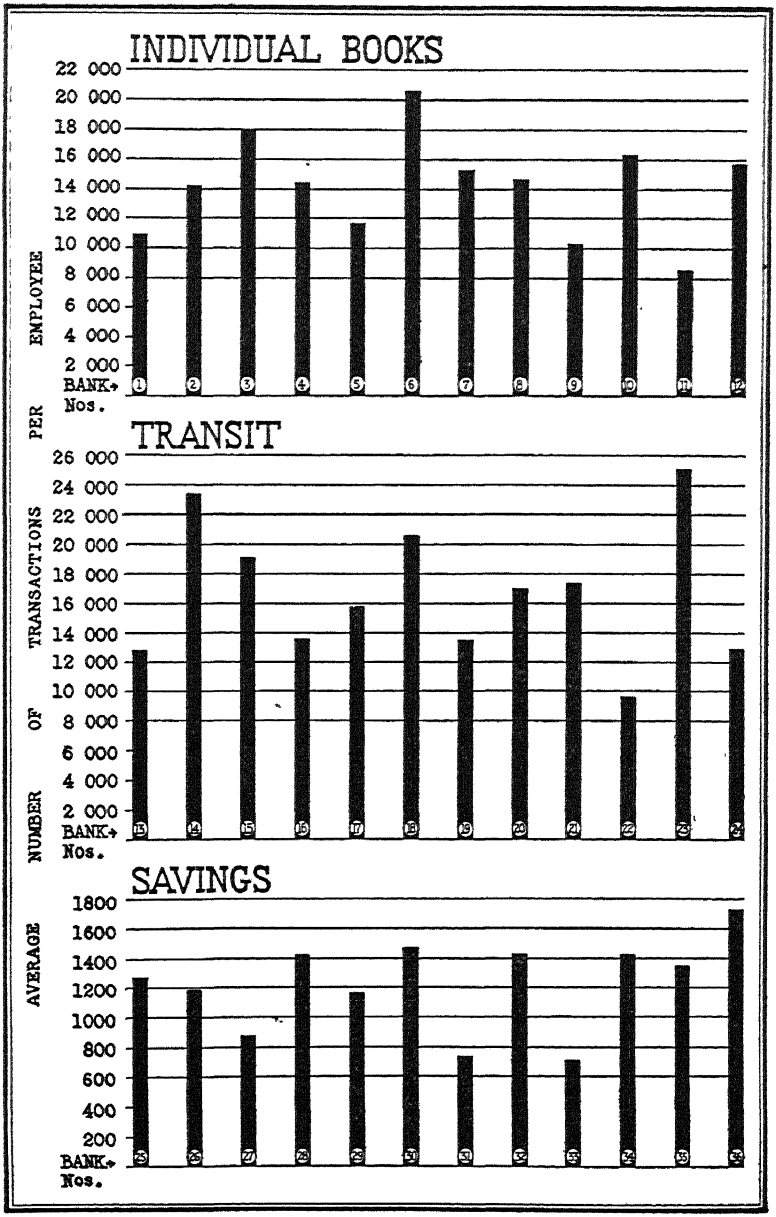
1. Poor working quarters.
2. Long hours.
3. Improper supervision.

Too many bank buildings are still architectural monuments rather than practical offices. Stress is laid solely on the beauty and utility of the banking floor proper. Behind the scenes, operations, such as books, clearings, distribution, transit, and so on (in which operations the bulk of the employees are engaged), are placed in makeshift spaces with poor light and poor ventilation. In the construction of bank buildings the interior layout should be made first and the building built around this layout, rather than the reverse procedure, which has been so customary in the past.

Lack of interdepartmental coördination, improper flow of work, poor procedures, and improper supervision all result in abnormally long hours for personnel in several departments. There is no excuse whatsoever for a condition which forces a number of employees to work each evening far beyond five o'clock.

A condition found in many banks is a low turnover in one department and an excessively high turnover in another department. The difference is usually the result of the difference in the executive and supervisory ability of the department heads. Many errors have been made in the promoting of able technical men to supervisory positions. There is no relationship between *technical* ability and *executive* ability. A splendid technician, or performer on an individual job, may be a dismal failure when promoted to a supervisory position requiring executive ability. Splendid detail men have made poor supervisors, and only average and even poor detail men have made very capable supervisors.

The chart on page 87 reflects the variation in the average number of transactions per employee per month of various departmental operations in large banks. Note the extreme variations in "Individual Books," "Transit," and "Savings" departments. The banks selected for this comparison had very nearly equal mechanical equipment and procedures in these departments, hence the differences in the results were



Showing how individual employees vary in speed

largely due to differences in personnel administration, ability of personnel, quality of supervision, and interdepartmental coördination, all controllable factors of general management. The result was a tremendous variation in operating costs per transaction.

The following is an illustration of the difference in the seasoning factor of the personnel of two large banking institutions:

Class of Work	Bank A	Bank B
Non-clerical	82	71
Apprentice	52	63
Junior clerical	73	59
Senior clerical	85	55
Major clerical	92	63
Junior teller	82	73
Senior teller	95	80
Junior supervisory	85	65
Senior supervisory	92	81
Major supervisory	98	83
Junior specialist	82	61
Senior specialist	98	85
Major specialist	100	95
Weighted average	94	63

Bank A had formulated sound principles of personnel administration, and these were applied. It had a well organized personnel department which employed the most modern methods of job analysis, selection, and training of employees. It had a settled and smoothly operating organization, advanced methods, and low operating costs. It had a fifteen-year continuous record of promotion from the ranks. The conditions in Bank B were about the reverse of those in Bank A.

CHAPTER VIII

THE BUSINESS DEVELOPMENT FUNCTION

AN ACCEPTED principle in merchandising is: center your sales effort on the products which have the highest profit margin. The same principle holds true in the business development of banks. The following table reflects the operating-profit margin to gross income of the various "salable" activities of a mid-western bank:

Activity	Per Cent
Commercial checking account funds	27.5%
Savings funds	24.5%
Country-bank funds	3.8%[1]
Safe deposit	39.5%
Trust department	20.2%
Real-estate mortgage	49.5%
Bonds	60.2%

[1] Loss.

Prior to the above analysis the bulk of the business-development activity of this bank was centered on commercial-checking and country-bank accounts. After the analysis, the policy was changed to an intensive development of bonds and real-estate mortgage.

The interest payment on country-bank accounts was such as to make the majority of these accounts unprofitable. Through clearing-house action, the interest was changed from 2½ per cent on book balances to 2 per cent on net balances, with the result that the

country-bank-fund aggregates reflected a margin of profit which justified the further development of such accounts.

In another bank, extensive business-development work was in process on savings accounts. An analysis indicated that there was almost no profit on savings-deposit aggregates at the then prevailing rate of 4 per cent interest paid. Later this rate was changed to 3 per cent, and the margin of profit so enlarged thereby as to make the intensive development of such accounts justifiable.

The degree of quality of demand-deposit funds is reflected by the number of transactions (checks drawn and deposited) per $1,000 of balance.

The less this activity ratio, the less is the operating-expense ratio and the greater the profit ratio.

Each individual account, in the aggregate of this group of deposit funds, has its own characteristic — that is, the transaction activity varies and the amount of interest which the bank can afford to pay thereon varies.

The basis of all sound business-development plans is the obtainment of profitable business. To comply with this, a bank *must* know its costs and profit margins.

TO ANALYZE PROFITS

Hence, to analyze intelligently the degree of profitableness of such business, the bank must use correct

methods for analyzing the cost of deposit accounts. Many former "quality" account banks have diluted their operating-profit margin on this class of business by unwise solicitation of non-profitable accounts.

In savings departments, other things being equal, the greater the average balance per account, the greater is the operating-profit margin of savings-deposit aggregate funds.

Researches have shown that the average number of transactions per savings account are about the same in quality and non-quality account savings departments; hence the greater the average balance per account, the fewer will be the number of transactions per $1,000 of balance and the smaller the operating expenses per $1,000 of balance.

This is clearly illustrated by comparing current operating expenses of the savings departments of two banks located in the same city. Bank A is a quality-account bank with average balances per account of $595. Bank B had diluted its average from $460 per account to $163 per account through unwise account-soliciting methods.

The average number of transactions per account per month of the two banks was almost identical, and the operating cost per transaction was almost identical. However, the number of transactions per $1,000 of balances of Bank B was approximately three and one-

half times as great as for Bank A, with the following effect on operating expenses:

Expense Items	Per $1,000 of Deposits	
	Bank A Average Balance $595	Bank B Average Balance $163
Interest paid	$28.70	$28.62
Salaries	1.83	4.42
Advertising	.68	6.41
All other direct expenses	1.72	4.89
General expense	4.72	7.01
Total expenses per $1,000 of deposits	$37.65	$51.35

In bond departments, the greater the percentage of over-the-counter sales to total sales, the lower is the selling expense and the greater the operating-profit ratio. Therefore advertising and business-development plans for bond departments should have as their objective the increase in the proportion of over-the-counter sales.

The greater the number of bonds sold by officers and employees of other departments than the bond department, the nearer the approach to an "institutional" department with a high operating-profit ratio, as compared with a "free-lance" department where practically all sales are due to the personal effort of the personnel of the bond department, with an accompanying low operating-profit ratio.

Any intelligent and effective business-development plan for *profitable* business, therefore, presupposes that a bank has instituted correct cost methods in order to ascertain just what type of business to develop.

Two modern conceptions of banking are:

1. It is the science of investing money.
2. Banking is merchandising. It consists essentially of the purchase and sale of commodities in the form of monies and credits and securities, very tangible things, and of services which may or may not be tangible. Therefore, all of the fundamental principles in the science of merchandising are applicable to bank-business development.

So many different methods of developing business have been sold to bankers, or applied by them, that a great confusion exists as to the best method. The time has arrived for bankers to clearly analyze the *fundamentals*.

In tracing the growth of any bank from its inception, and analyzing the present profitable accounts and their sources, it is almost invariably found that the bulk of the business, especially the choice business, was developed by the personal contact of the directors and officers of the institution.

The greatest factor in the growth of many institutions has been the following created by the personal contact of directors and officers.

As the bank becomes larger and larger, this degree of personal contact is lessened. The purpose of the so-called "contact-department" plan is to bring back this personal contact to the stage where it belongs,

develop and utilize it in a systematic manner, and then produce personal contact on a mass-production basis.

The first step in the development of such a plan is to organize the work of all officers and a selected number of department heads and employees in such a manner as to make available a *definite* amount of time of each such individual to be allocated to business development and nothing else. In most instances this means that the entire organization structure and subdivisions of work must be realigned.

The second step consists in educating the members of the group as to the kind and value of all of the services performed by the institution. The third step is the creation of a contact department. This is the machinery and coördinating operation of the plan. The function of this department is to develop a logical program as to calls to be made on present customers, for the purpose of cementing relationship and obtaining leads, and a program of calls on prospects.

It makes out call cards with complete information as to the business and affiliations of the prospect; it assigns these cards to the individual best qualified to make the call; it receives reports on calls, analyzes them, and provides for a follow-up. It maintains records of the results produced, the number of calls made compared with the "quota," and the amount and profitableness of the business developed.

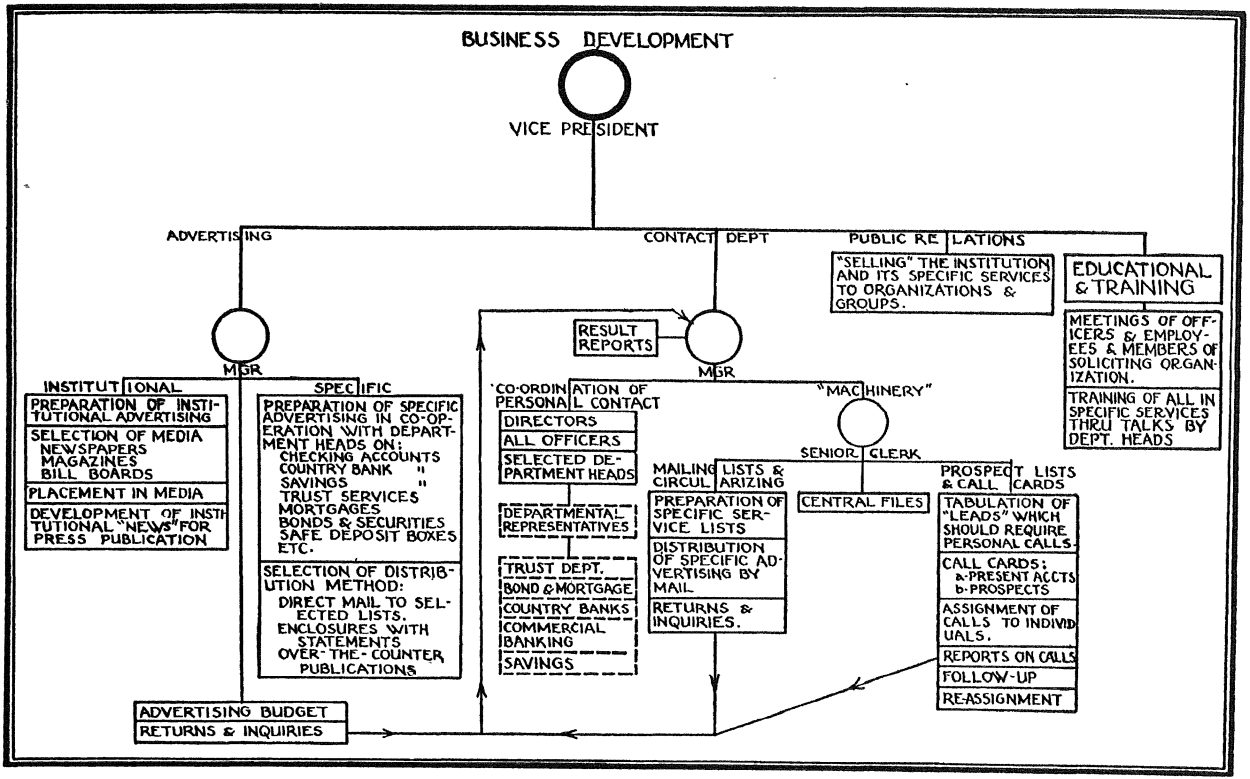

BUSINESS DEVELOPMENT
VICE PRESIDENT
ADVERTISING
MGR
INSTITUTIONAL
PREPARATION OF INSTITUTIONAL ADVERTISING
SELECTION OF MEDIA
NEWSPAPERS
MAGAZINES
BILL BOARDS
PLACEMENT IN MEDIA
DEVELOPMENT OF INSTITUTIONAL "NEWS" FOR PRESS PUBLICATION
SPECIFIC
PREPARATION OF SPECIFIC ADVERTISING IN CO-OPERATION WITH DEPARTMENT HEADS ON:
CHECKING ACCOUNTS
COUNTRY BANK "
SAVINGS "
TRUST SERVICES
MORTGAGES
BONDS & SECURITIES
SAFE DEPOSIT BOXES
ETC.
SELECTION OF DISTRIBUTION METHOD:
DIRECT MAIL TO SELECTED LISTS.
ENCLOSURES WITH STATEMENTS
OVER-THE-COUNTER PUBLICATIONS
ADVERTISING BUDGET
RETURNS & INQUIRIES
CONTACT DEPT
RESULT REPORTS
MGR
CO-ORDINATION OF PERSONAL CONTACT
DIRECTORS
ALL OFFICERS
SELECTED DEPARTMENT HEADS
DEPARTMENTAL REPRESENTATIVES
TRUST DEPT.
BOND & MORTGAGE
COUNTRY BANKS
COMMERCIAL BANKING
SAVINGS
"MACHINERY"
SENIOR CLERK
MAILING LISTS & CIRCULARIZING
PREPARATION OF SPECIFIC SERVICE LISTS
DISTRIBUTION OF SPECIFIC ADVERTISING BY MAIL
RETURNS & INQUIRIES.
CENTRAL FILES
PROSPECT LISTS & CALL CARDS
TABULATION OF "LEADS" WHICH SHOULD REQUIRE PERSONAL CALLS
CALL CARDS:
a-PRESENT ACCTS
b-PROSPECTS
ASSIGNMENT OF CALLS TO INDIVIDUALS.
REPORTS ON CALLS
FOLLOW-UP
RE-ASSIGNMENT
PUBLIC RELATIONS
"SELLING" THE INSTITUTION AND ITS SPECIFIC SERVICES TO ORGANIZATIONS & GROUPS.
EDUCATIONAL & TRAINING
MEETINGS OF OFFICERS & EMPLOYEES & MEMBERS OF SOLICITING ORGANIZATION.
TRAINING OF ALL IN SPECIFIC SERVICES THRU TALKS BY DEPT. HEADS

ILLUSTRATION OF APPLICATION

The plan of organization and the outline of work performed, as developed to meet the requirements of a specific bank, are illustrated by the accompanying chart.

The first step consisted of a detailed analysis of the present and potential rates of profit of each of the various services which the institution performed and which it could develop to perform.

The second step consisted of a thorough analysis of the methods employed in developing new business, the costs involved, and the results produced thereby.

The third step consisted of an analysis of the organization structure and the subdivision of work among officers and department heads, and a realignment of the structure and the work performed, so as to make available a definite part of the time of each officer and department head who was to become a member of the sales force for business-development work.

The fourth step was in organizing the business-development division in accordance with the illustrated chart.

A program for developing a list of names of prospects to be approached by personal call was inaugurated through the information contained on the central file cards and through a series of officers and department head meetings. Calls to be assigned were divided into three groups.

1. Present important commercial customers who were to be called upon by officers at their places of business, for the purpose of cementing present relations and obtaining "leads."
2. Present customers of one specific service who appeared to be good prospects for other services; to be called upon by specialists of these other services.
3. Names of persons who were not now customers of the institution, but whose business would prove desirable to the institution.

A specific morning, afternoon, or full day each week was assigned to each member of the sales organization to be devoted entirely to personal-contact work. A specific number, or quota, of calls to be made was then assigned to each such member for each week. Each non-officer member of the board of directors was also pledged to make a certain number of calls each week if called upon to do so.

Call cards were made out which gave as complete a description of the business, interrelation, affiliation, and present standing of the account as could possibly be obtained, and each card was assigned to the member of the organization who was deemed best fitted to make the contact. A registry was kept of all cards outstanding, so as to check up reports on calls made, for a report on each call was to be made on the back of the call card and returned to the contact department.

From information obtained from reports on calls, from central file cards, from reports on new accounts opened, from inquiries developed through advertising, and prospect names developed from various other sources, a decision was made by the contact department manager as to the best method of approach. He decided whether to treat a prospect name first by circularizing specific advertising literature and later making a personal call, or whether a personal call should be assigned to the name at once or at some specified time in the future.

A series of educational meetings were held in order to familiarize each member of the sales organization, at least in a general way, with the merit of and sales argument for each of the specific services which the institution performed.

A record of results produced was developed, which indicated the degree of coöperation obtained from each member, as follows:

1. Number of calls made compared with the quota.
2. Number of new prospect names furnished.
3. Number of new accounts opened and their value.
4. Number and value of additional services sold to present customers.
5. Increases in the account of present customers.

An interdepartmental bulletin was published each week which indicated the amount of business which the members of each department developed for other

departments. This measured the degree of inter-departmental coöperation.

In order that full coöperation to the plan be obtained from each member, the following incentive plan was devised:

1. The executive committee let it be known that an important factor in salary increases was to be the degree of coöperation shown and results produced as indicated by "weighing" the five factors of results shown previously.
2. A specific part of the profits of the institution was to be distributed to the members of the sales organization, and the proportion allotted to each member was to be in proportion to the results he produced as measured by the five-result factors.

In this institution the "part-time sales organization" consisted of fourteen individuals. The average number of personal-contact calls made by these fourteen individuals per week was 70, or at the rate of 3,640 per year; that is, 3,640 present customers and prospects were called upon at their places of business each year by an officer or departmental specialist. This did not include the number of calls made by full-time bond salesmen, by a full-time trust-account solicitor, or by a full-time mortgage-loan solicitor.

It is readily apparent that any plan which will produce such a well coördinated mass contact will result

in a great increase in the rate of growth of business for all departments, and that such increases are largely represented by selective, profitable accounts. In addition the plan, linked with this financial incentive, produced a high degree of team work among all members of the organization. It broadened the scope and vision of each member, and it increased his value to himself and to the institution.

CHAPTER IX

THE OPERATING FUNCTION

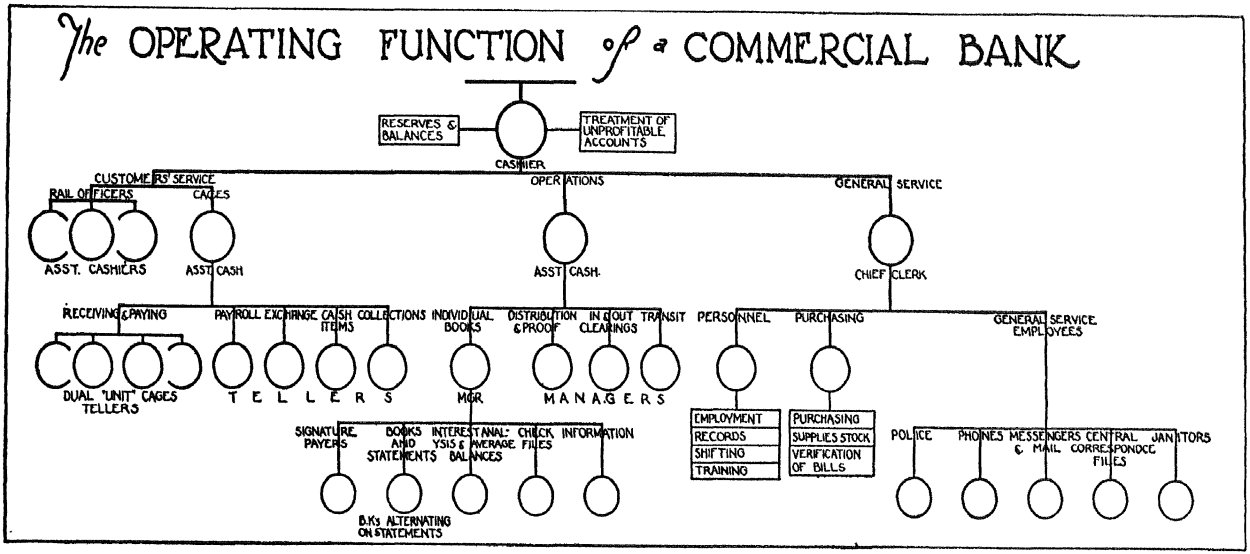
THE operating function in a commercial bank deals with the performance necessary to the internal handling and recording of transactions (other than those of loans) and the serving of customers in accordance with the best policies of customer relationship.

In most commercial banks the operating function has developed around the cashier and the loan-administration function has developed around a vice president. Even today the general public looks upon the cashier as the chief point of contact on the deposit side of the business.

As banks grow in size, it becomes necessary for the cashier to delegate much of his work, and in banks where this subdivision of work and delegation is done along rather definite and sound channels, we find organization structures essentially in accordance with that shown on the chart illustrated on page 102. This is especially true in banks ranging from ten to thirty million of deposits and even those much larger.

FUNCTIONAL DIVISIONS

In the smaller banks the same essential elements appear, but the subdivision of work is not carried out


The OPERATING FUNCTION of a COMMERCIAL BANK
RESERVES & BALANCES
CASHIER
TREATMENT OF UNPROFITABLE ACCOUNTS
CUSTOMERS' SERVICE
OPERATIONS
GENERAL SERVICE
RAIL OFFICERS
CAGES
ASST. CASHIERS
ASST. CASH
ASST. CASH.
CHIEF CLERK
RECEIVING & PAYING
PAYROLL
EXCHANGE
CASH ITEMS
COLLECTIONS
INDIVIDUAL BOOKS
DISTRIBUTION & PROOF
IN & OUT CLEARINGS
TRANSIT
PERSONNEL
PURCHASING
GENERAL SERVICE EMPLOYEES
DUAL "UNIT" CAGES TELLERS
T E L L E R S
MGR.
M A N A G E R S
SIGNATURE PAYERS
BOOKS AND STATEMENTS
INTEREST & BALANCES
ANAL: AVERAGE
CHECK FILES
INFORMATION
B.K's ALTERNATING ON STATEMENTS
EMPLOYMENT
RECORDS
SHIFTING
TRAINING
PURCHASING
SUPPLIES STOCK
VERIFICATION OF BILLS
POLICE
PHONES
MESSENGERS & MAIL
CENTRAL CORRESPONDCE FILES
JANITORS

so far as shown in the chart. As will be observed from the chart, the three major functional divisions are (1) customers' service, (2) operating, and (3) general service.

Customers' service. Customers' service consists of a group of individuals who come in direct contact with the customer on the deposit side of the business.

The rail-officer assistant cashiers are the direct contact as to inquiries, special services, directing, complaints, and opening of accounts, and they are the signers of documents, such as certificates of deposit, cashier's checks, drafts, and so on. The popular tendency of bank layouts is to place these officers in a separate group, physically separated from those officers who deal with loan and credit transactions.

The teller group represents those transactions which the commercial customer usually utilizes in the ordinary course of business.

In large banks, especially those where great stress is laid as to customers' service, the popular trend is to limit the cashier's function purely to customers' service, and place the "operations" and "general service" groups, shown on the chart, among other things, under the jurisdiction of an operating vice president.

Operating. This group of personnel does not come in direct contact with customers, but the degree of satisfactory customer service rests to a great extent

with the effectiveness of the operations of this group. In this operation the recording and handling side of customers' transactions takes place, and accuracy and speed of work must be the keynote. A breakdown in this "machinery" would seriously affect customer relations.

General service. This represents a group of services which benefits all divisions and departments in the entire institution. In the larger banks some of these services—notably personnel administration and supplies-expense control—have been developed to a high degree.

MODERN OPERATION TRENDS

Here are some general observations as to modern bank-operation trends, relating to operating details:

Commercial receiving and paying. In all sections of the United States there is a strong tendency toward the adoption of the dual-unit plan of paying and receiving cages. This means that both the paying and receiving operations are handled by one teller, and each cage or unit handles a "unit" of bank depositors, subdivided alphabetically. Smaller banks may have but one cage for each unit and only one window to a cage; the larger operations either have several cages to the unit or one large cage with several windows.

Advantages of the dual unit are manifold. It is obvious that customers' service is benefited when a depositor can both make deposits and cash checks at

the same window. The flow of work is speeded, for at no time is there a condition, such as exists under the separated paying and receiving operations, of having a "paying" load with the receiving tellers idle, or vice versa.

The mechanics of receiving are far removed from the day when the teller received a deposit, checked the items, and eventually charged them to their ultimate source. Most of this work is now handled by a "distribution and proof" department, and the teller is concerned only with the verification of cash.

Distribution and proof. This department is the heart of the behind-the-scenes operation. As practically all of the items destined for the bookkeeping, in and out clearings, and transit departments pass through the distribution department, a breakdown at this point would tie up the entire machinery. Among some of the larger banks, distribution departments are organized along much the same lines as the famous "Ford assembly line."

The work of the checking, proofing, sorting, and charging of items is so subdivided that each clerk within the department handles but one small detail. Lower costs are a natural resultant, as no higher priced clerk performs work which a lower priced clerk can perform. Production has been speeded still further by the introduction of mechanical devices such as carrier belts, distributing machines, and the like.

In addition to the mere proofing of deposits and sorting and listing of items, the scope of this department may include a large portion of the work of the bookkeeping, clearing, and transit departments. Thus "checks on this bank" and "deposits" may be sorted and charged directly to bookkeepers, individually or in groups. Clearing checks on the larger city banks are usually sorted and listed by banks, and transit checks are sorted and charged directly to the divisions within the transit department.

Individual books. Bookkeeping departments are rapidly being organized on a unit basis; that is, all of the ledgers are divided into unit groups of several ledgers each. Because of the character of the work performed, intensive supervision is necessary. These same units are the basis for supervisory lines, each unit being in charge of a signature payer or senior clerk. Inasmuch as bookkeeping records are permanent records, and statements are forwarded to customers, accuracy and neatness are prime requisites for this work.

Transit. Speed in the collecting of items is the first consideration in transit operations. With the establishment of the Federal Reserve System, the collection of checks was greatly facilitated. The introduction of air mail and the further expansion of this service will greatly reduce the time consumed in the collection of items. It also necessitates a more careful handling

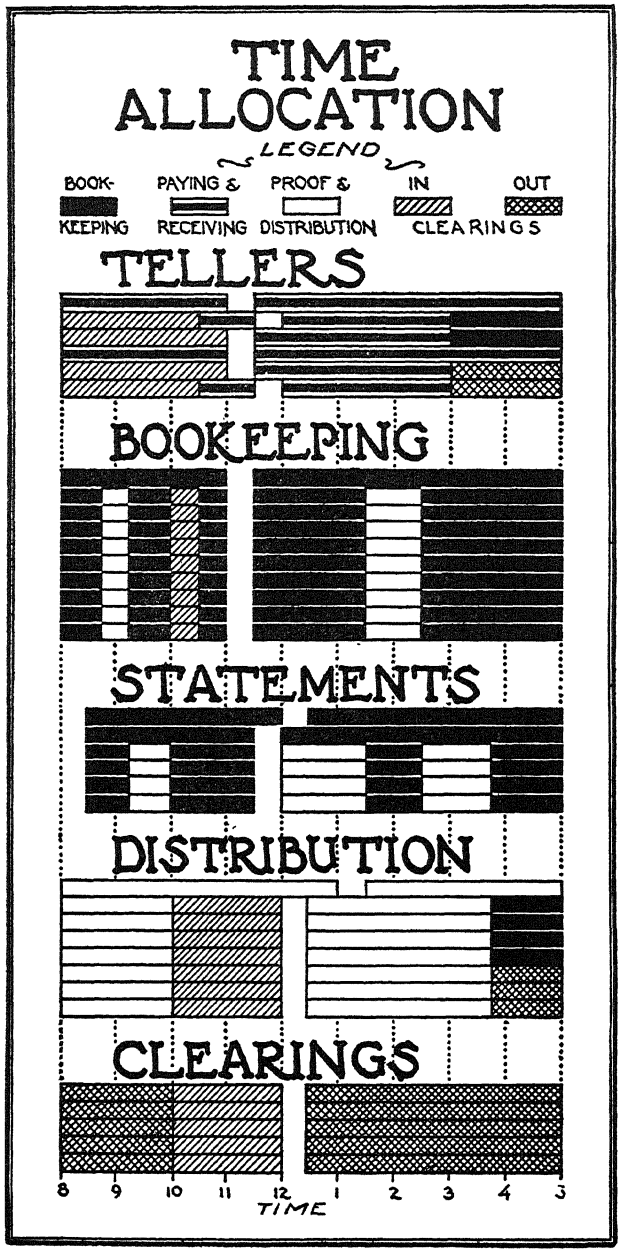
of large transit items, as these same items can frequently be collected the same day. Income realized through the rapid conversion of uncollected funds into income-producing balances is an important factor in bank earnings and one which depends entirely upon the efficiency of the transit department.

SHIFTING-CREW PRINCIPLE

Since the volume of the number of transactions passing through a bank varies greatly by days and during hours in a day, and since this variation does not affect all operations simultaneously, idle-time periods are created unless employees are shifted from one operation to another as the load varies. This change in the nature of the work of employees is termed the shifting-crew method in contradistinction to the fixed-position plan.

The shifting-crew principle is *inherent* in all very small banks, for in such banks practically all officers and employees are "general utility" men. As banks grow in size the tendency of many of them is to become so highly departmentalized that each department and subdepartment becomes a highly individualized unit handling only its own work. Under such a plan there is created a condition of a great deal of unutilized time, with a resultant high transaction cost.

The shifting-crew method is for the purpose of utilizing *all* of the time of *all* of the personnel and, when


TIME ALLOCATION
LEGEND
BOOK-KEEPING
PAYING & RECEIVING
PROOF & DISTRIBUTION
IN CLEARINGS
OUT
TELLERS
BOOKKEEPING
STATEMENTS
DISTRIBUTION
CLEARINGS
8 9 10 11 12 1 2 3 4 5
TIME

fully developed and *effectively supervised,* results in a substantial reduction in transaction costs.

The illustration on page 108 shows the time allocation of a shifting-crew plan in operation in a medium-sized commercial bank. All of the tellers and clerks are busy all of the time, with the result that an exceptionally low cost per transaction is found in this bank.

CHAPTER X

BANK PRODUCTION ANALYSIS

IN CHAPTER I, "The Triangle of Management," illustrations were presented which indicate that there is no relationship between dollars of deposits and number of personnel, and that the determinative factor as to the number of employees required is the number of transactions handled and recorded.

Some of the major purposes of production analysis in banks are:

1. To study the trend of the relationship between deposits and transactions. If the number of transactions per $1,000 of deposits increase, it is evident that the quality of deposit accounts is becoming diluted. Assuming stabilized income rates, the operating-expense ratio to gross income will therefore increase, for, as transactions increase, more employees, more supplies, and more space become necessary.
2. To study the trend of personnel requirements. Deposits in dollars may increase, but this does not necessarily mean that the volume of work has increased and that a greater number of employees are necessary. The relationship between number of transactions and number of

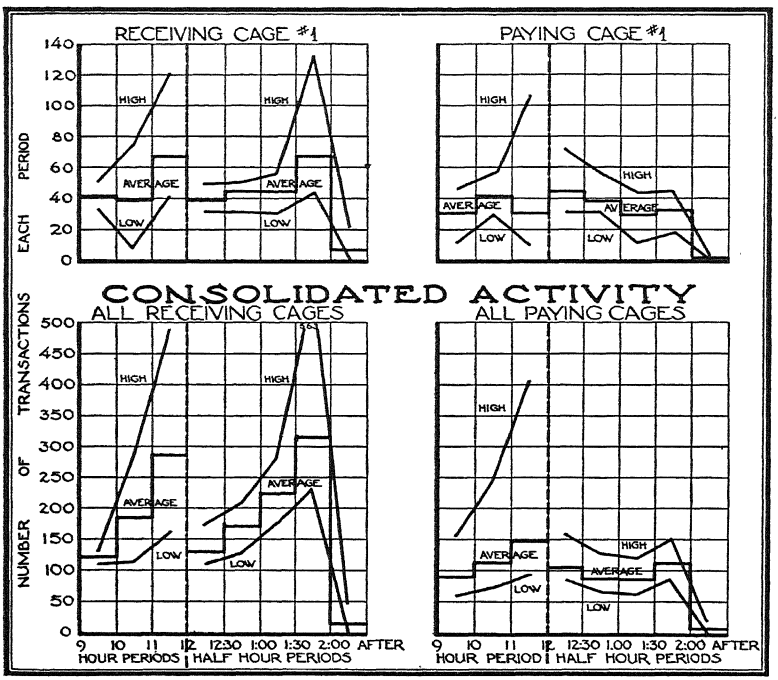
employees is of real significance in the study of the trend of the salaries-cost ratio.

3. To study the fluctuations in the "load of work" of various departments and operations, by days of the month and by periods of the day. The object of this analysis is to develop a time-allocation schedule and apply the shifting-crew principle, as was illustrated in the preceding chapter. According to this principle, the personnel is shifted from one operation to another as the volume of work fluctuates. Hence all of the personnel is always engaged on productive work.
4. To obtain definite information as to the comparative value of individuals in relation to their salaries and the general wage scale, and to apply this information as a basis for salary adjustments and promotions.
5. To obtain the cost of transactions and to use this information for trend studies and cost comparisons, and to translate these for the purpose of analyzing the cost of deposit accounts, the cost of loan transactions, and many other uses.

COMMERCIAL RECEIVING AND PAYING CAGES

The charted illustrations on page 112 are based upon a study made of the number of transactions handled in each receiving and each paying cage by

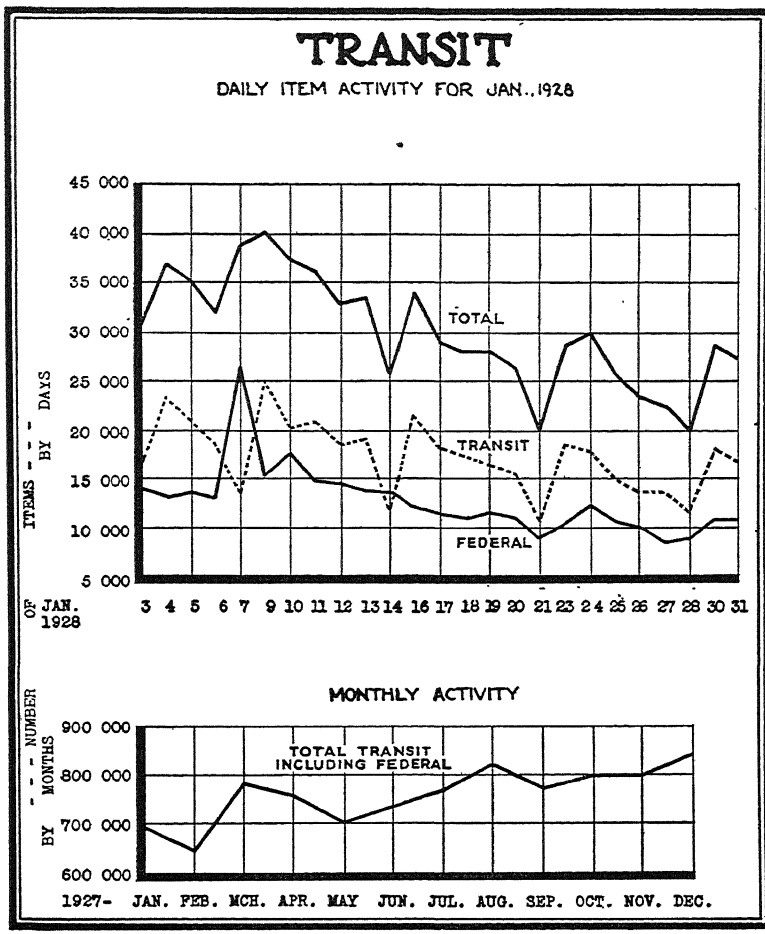
time periods. The test was run over a cycle of a typical week.



The lines on the charts show the number of transactions for each hour or half-hour period in the various cages during a typical week. The "high" and "low" show the highest and lowest points reached in any day of the week.

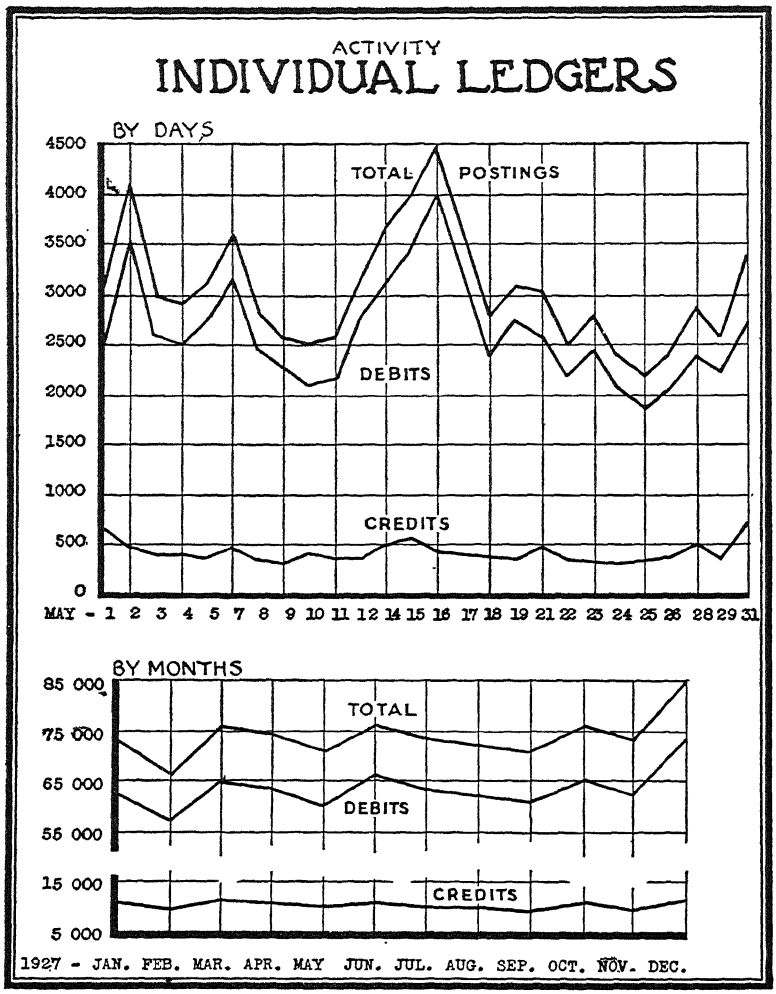
The "high" and "low" reflect the highest and lowest point reached in any day of the week. The consolidated activity combines the figures of all receiving and all paying cages.

The study indicates that the receiving load and the paying load varied during different time intervals of the day, and this study, combined with other tests,



This chart indicates the daily fluctuation of transit items handled during a typical month and the trend of the totals by months over a "cycle" of one year.

indicated that it would be of advantage to the bank, and for better customer service, to change the system



This chart indicates the daily fluctuation in debit and credit postings to individual books and the trend of the totals by months over a "cycle" of one year.

to the dual cage-unit plan, that is, both receiving and paying to be handled in the same cage. This was done, with a subsequent savings in teller cost and a considerable speeding up in service to customers.

TRANSIT DEPARTMENT

The chart on page 113 indicates the daily fluctuation of transit items handled during a typical month and the trend of the totals by months over a cycle of one year.

INDIVIDUAL LEDGERS

The chart on page 114 indicates the daily fluctuation in debit and credit postings to individual books and the trend of the totals by months over a cycle of one year.

A comparative study of the production of each individual bookkeeper is shown below:

A COMPARATIVE STUDY OF INDIVIDUAL BOOKKEEPERS

LEDGER NUMBER	No. OF POSTINGS	% OF TOTAL POSTINGS	No. OF ACCOUNTS	% OF TOTAL ACCOUNTS	AVERAGE No. OF POSTINGS PER ACCOUNT
1	19,851	11.8	681	13.6	29.2
2	23,308	13.9	474	9.5	49.2
3	18,667	11.1	495	9.9	37.7
4	21,009	12.5	626	12.5	33.6
5	17,289	10.3	669	13.4	25.8
6	24,299	14.5	704	14.1	34.5
7	19,192	11.4	680	13.6	28.2
8	24,193	14.5	668	13.4	36.2
Total	167,808	100.0	4,997	100.0	33.6

Besides judging the comparative production of employees, an analysis such as the foregoing is of value

in so rearranging the number of accounts per ledger as to equalize the load of work on the various ledgers.

MEASURING BANK EMPLOYEES

The foregoing are merely illustrative examples of production analysis. Practically all routine and machine operations in banks can be measured as to production.

Linked with production data is quality-of-work data, that is, records of errors. Some banks have established the practice of gathering data as to the accuracy of clerks, and they offer cash prizes to the most accurate. Other banks make it a practice to publish output and accuracy records of individual employees on bulletins in the department. This is done for the purpose of creating a competitive spirit among the employees as to speed and accuracy.

There is a growing tendency among progressive banks toward a study of production and production costs of the same nature and with the same object in mind as has been applied for years past in progressive manufacturing establishments. Such studies have been successfully applied in many banking institutions with outstanding results in cost reductions, increases of relative efficiencies of employees, and as a basis for sound personnel policies and administration.

CHAPTER XI

LOAN ADMINISTRATION POLICIES

LOAN administration is that function which relates to the effective conversion of liability funds (deposits and invested capital) into earning assets (loans and discounts, bonds and securities due from banks, and so on), and the sound administration of these earning assets. It deals with the following important elements:

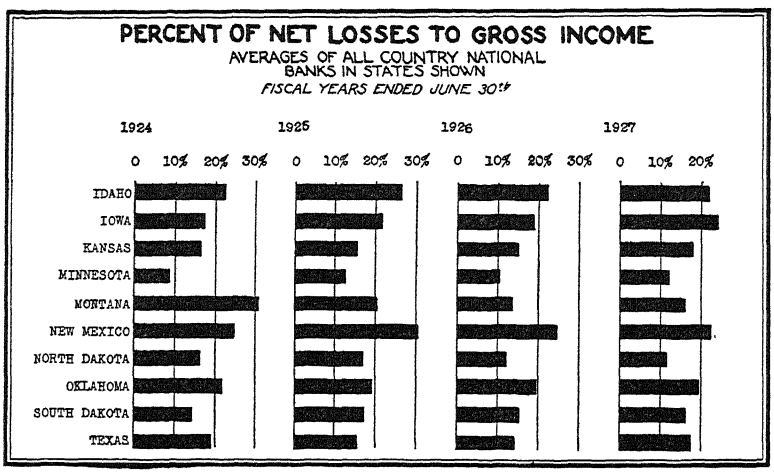
1. Safeguarding of the principal of each asset.
2. Obtainment of the highest possible income yield commensurate with safety and liquidity.
3. Safeguarding the liquidity position of the bank.
4. Maintenance of a strong balance-sheet position of the bank.

Loan administration has been properly termed the "heart of the bank," for the financial position of the bank and an adequate rate of income from interest and discount are entirely dependent upon the operations of this function. Loan administration, as a function, dictates the financial policy of a banking corporation.

Improper loan administration has been the cause of more bank failures than any other single factor. Of what benefit is a high operating profit when ineffective loan administration produces net losses so great as to

absorb the major part of the operating profit, and in many instances all and more?

The chart below indicates the average per cent of net losses to gross income by years of all of the country national banks in the states shown, that is, all national banks within each state located outside of Federal Reserve cities.



It indicates how many cents out of each income dollar were absorbed by net losses. The states shown are those which passed through an unprecedented era of bank failures. Since the profit margin before losses in many small banks is not more than 15 to 20 per cent of the gross income, it is obvious, from the data presented, why so many small banks failed in the states shown.

Effective loan administration manages for both liquidity and profits. If managed only for profits,

these profits will be inflated during a short interval of time. Then as the assets become "frozen," subsequent charge-offs will be so great as to absorb the profits of the apparently prosperous years, and on a long-term basis the actual profit rate will be decidedly below that of a bank which has managed consistently for both liquidity and profits.

A study of the strong, surviving banks in this area of bank failures indicates that the sole reason for their survival and strength of position is due to effective management of both liquidity and profits.

The following table reflects the differences in the financial policy of three representative banks. That the fund-conversion policies were drastically different is shown by the comparative analysis of the ratios of the balance-sheet assets:

Items	Per Cent of Total Resources		
	Bank A	Bank B	Bank C
Cash items	12	14	15
Commercial paper, call loans, bankers' acceptances	...	...	2
Local loans	61	41	28
Local mortgages	15	12	14
"Free" U. S. bonds	3	6	12
Active market bonds	...	12	14
Investment bonds	3	11	13
Fixed assets	5	3	2
Miscellaneous	1	1	1
	100	100	100

Bank A converted far too great a proportion of its funds into local loans and its liquidity position was seriously affected, due to the "freezing" of an appreciable percentage of its local loans with no liquid

secondary reserve available. Bank C was in a splendid liquid position, and Bank B in an intermediate position. The position of the three banks is indicated still further by an evaluation of the local loans as follows:

Bank	Per Cent of Total Local Loans			
	Slow	Doubtful	Loss	Not Criticized
Bank A.....	33	13	6	48
Bank B.....	22	15	4	59
Bank C.....	7	1	0	92

Over a short period of years the apparent earning rate of Bank A was above that of Bank C, for Bank A had converted a greater proportion of its funds into local loans with a far greater rate of yield than on investment securities. Subsequent losses on these, however, were so great that the actual earning rate over a period of seven years was substantially below that of Bank C. In addition, at the end of the period it found itself in a decidedly non-liquid position.

The following program has aided banks in gradually assuming a splendid liquid position. In these cases, however, the operating-profit ratio (profit before losses) was ample. When not ample, a reduction in current operating expenses is part of the program.

1. Set a goal of attainment; that is, determine standard ratios of liquidity in detail for the asset side of the balance sheet. These standards vary with the nature of the business of each bank. A detailed study must be made of the seasonal

characteristics of the various classes of deposit funds and of the local loan demand.

2. Apply these standard ratios of liquidity to the present assets and determine the amount of overextension and insufficiency of each class.
3. Make a decided effort to reduce slow lines. Reinvest the funds so obtained into more liquid assets.
4. Discontinue "capital" financing. Each new loan should be a true commercial or agricultural loan, that is, where it is a certainty that the borrower has the capacity to "turn" his line during a reasonable interval of time.
5. Dispose of all non-income-producing assets, even at a loss, and convert such funds into liquid, income-producing assets.
6. Discontinue dividends. Keep the earnings in the business and convert them into liquid assets until standard ratios have been reached.
7. Make a decided effort to increase the deposit funds, and convert these additional deposit funds into liquid assets.

REASONS FOR BANK FAILURES

The fundamental reason for many bank failures and the "frozen" condition of many other banks is the non-realization or the non-application of several vitally important basic principles of loan administration,

such as (1) capital financing, (2) capacity of the borrower to pay the loan at maturity, and (3) relation of deposit balances to loans.

Capital financing. An extension of credit for financing capital or permanent assets is not the function of commercial banking but of mortgage and investment banking. When a commercial bank becomes a "partner" in a business it assumes a risk far out of proportion to the maximum possible yield. If such a business is successful, the bank's principal plus a small rate of interest is returned, but if the business is unsuccessful the principal of the loan may be lost, all for the sake of a small interest rate of return. Commercial banks should be concerned solely with the extension of short-term commercial credits to finance the production and marketing of current merchandise and the extension of agricultural credit to finance the growing and harvesting of crops and the raising, fattening, and marketing of live stock.

Capacity of the borrower to pay the loan at maturity. The acid test for the granting of a loan is the determination of the capacity of the borrower to pay that loan at maturity.

The reliability and moral character of the borrower is the first test. His capacity to pay the loan at maturity may appear to be good, but unless his moral responsibility is high no bank would want him as a borrowing customer.

A borrower must not only be honest, but he must have ability. Borrowers discount the future. They expect to pay off their loans out of proceeds of transactions not yet consummated, but which are hoped will be profitable.

Hence, in evaluating credit risks, the earning power of the applicant must be carefully analyzed.

A borrower may show a fair financial position and give a statement of assets and liabilities, but if results from operations be such as to show that his net income-producing power is very slight, or actually negative, then the borrower's probability of liquidating the loan at maturity is seriously questioned.

An important part of the data in evaluating credit risks, therefore, is the obtainment and analysis of the earning capacity of the borrower.

Relation of deposit balances to loans. The chief source of the lending power of a bank is its deposits. The business side of commercial banking consists primarily of purchasing raw material in the form of deposits and converting these into loans at a price to effect a yield higher than what the funds cost the bank. Hence, credit risk being equal, the customers who have contributed most to the bank's raw material (deposits) are those most entitled to credit accommodations.

This is fundamental from a standpoint of customers' service and business. The first test, therefore, of determination as to whether or not a loan request

should be granted is the degree with which an applicant has contributed to the fund which makes loans possible.

During such times as the loan demand is greater than the available loanable funds, the chief test as to who should be accommodated and to what extent (credit risk being equal) is the history of deposit balances.

Banking is a joint-cost business, mainly that of receiving deposits as checking accounts and making loans. To achieve justice as between checking non-borrowing accounts and borrowing accounts, it is only fair that the borrowing account contribute at least sufficient deposit funds, the earning from which will at least pay for the cost of loan and credit functions. What this should be in an individual institution can be determined only by a detailed income and cost analysis, but the "20 per cent rule" has been the accepted practical method for accomplishing this result.

The principle and practice are sound, for the total cost to the bank for loaning money is far greater than purely the interest which it pays to secure deposits.

It costs money to borrow, but the right to credit must be earned. Banks should prefer to select as borrowers those customers who earn the right to credit by keeping balances symmetrical with desired loans.

Borrowers must maintain adequate cash working balances sufficient to insure a safe liquid position. The 20 per cent, or even the 15 per cent rule, protects both the borrower and the bank. From the bank's

standpoint, the balance in the deposit account should be at least sufficiently large so that the deposit account by itself is profitable.

The income from the funds in the checking account should be at least great enough to pay for the cost of handling the deposit account. In analyzing the profitableness of checking accounts it certainly would be an unsound condition to find the balances, in comparison with activity, so low in the accounts of borrowing customers that their deposit account is handled at a loss.

CHAPTER XII

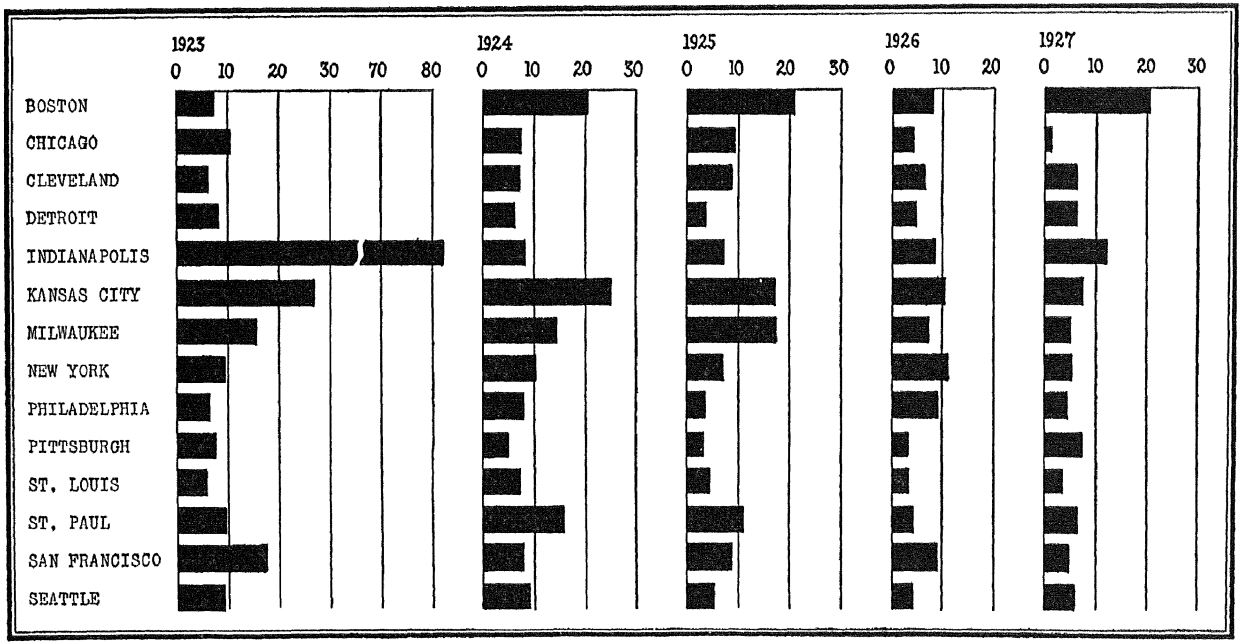
THE EVALUATION OF CREDIT RISKS

THERE is no more dangerous factor in bank operation than the steady drain of heavy credit losses, especially when that steady outlay is augmented by the occasional failure of an important borrowing client.

The accompanying chart is a "sermon without words." Since these figures represent *averages* of groups of banks, it is evident that certain individual banks have met with losses far in excess of these averages. It indicates that a relatively large number of dollars of every $100 of gross earnings is made unavailable for dividends or surplus due to these credit losses.

During periods of economic depression, it is not unusual to find losses in excess of operating earnings, and in many instances losses are so great as to affect surplus and even impair capital.

The foundation of all successful banking lies in sound credit policies and effective loan administration. The formulation of wise policies is, therefore, one of the most important tasks of bank officers. While losses are influenced to a certain extent by current economic conditions over which the individual banker has little or no control, it is true, nevertheless, that the losses of



Per cent of net losses to gross income, showing averages of national banks in various cities for fiscal years ended June 30

a bank are a means of measuring the effectiveness of the policies adopted.

It is obvious that large losses mean an unwise and overliberal extension of credit. It is essential, then, that the problem be studied to discover what lines have been overextended. On the other hand, exceptionally low losses frequently mean that an overcautious policy is being followed which inevitably results in the loss of not a little desirable business.

The problem confronting banking executives is to establish policies which will enable them to avoid heavy credit losses and at the same time not be so restrictive as to drive away desirable prospective clients.

The illustrations shown are of banks located in important commercial and industrial cities, and this chapter is limited to a discussion of commercial and industrial credit risks.

THE BASIS OF SOUND CREDIT

The three *C*'s of credit have been so much discussed that the phrase has become shopworn. But relatively few loaning officers understand or make a practical application of all of the fundamentals behind the three *C*'s, and but few understand the relative importance of these fundamentals.

An analysis of hundreds of cases of industrial and commercial charge-offs indicates that:

1. The credit risk, as reflected by balance sheets, income statements, and valuation reports, was apparently sound at the time the loan was granted.
2. These statements were, in most instances, correct from a standpoint of certified public accounting procedure.
3. Outside of these "figure" statements there was little or nothing in the credit files beyond the usual trade and bank reports.
4. There was relatively no information of value from which the stability of the business of the borrower could be judged.
5. In the majority of cases, the position of the borrower had not been followed up after the loan was made.

The degree of success and future stability of any enterprise is dependent upon the degree of development of the following three major factors:

1. Sound policies.
2. An effective organization to carry out these policies.
3. A control which measures the degree with which this organization applies these policies.

These factors may be called the triangle of effective management.

It is an admitted fact that the measurement of management ability and stability is the most important

factor of credit analysis. And because of the many intangible elements involved and the difficulty of measurement, as compared with other credit factors, but little progress has been made in the evaluation of this factor. It is because of lack of its proper evaluation that many credit lines have been granted which have resulted in charge-offs and but insignificant recoveries.

METHODS OF CREDIT ANALYSIS

One result of the post-war period of failures and resultant large charge-offs was the extensive development of credit departments and the introduction of elaborate credit mechanisms. This was especially true in banks located in the large cities in the East. This development has gradually worked its way westward, so that today the majority of large banks have elaborate credit files and some of them maintain research departments. In this development, too much stress has been laid on mechanisms and far too little on loan-administration policies and loan-division organization.

A wise policy is of more avail than a large plant; good management, than perfect equipment.

In spite of this elaborate development of mechanisms, the chart on page 127 indicates that losses are excessive even in those metropolitan banking centers where mechanisms have reached a high state of development.

HOW TO MEASURE CAPITAL

In general, the bulk of the credit data gathered and analyzed by present credit methods consists of figures for the measurement of capital. This lends itself more readily to measurement than the other credit factors. It is the factor which so far has received the most study and for which the most data is existent. In the most highly developed credit departments the following data are usually gathered:

1. The actual figures shown in the balance sheet and statement of profit and loss.
2. Comparisons of these figures for different periods.
3. The calculation of ratios between certain pairs of items taken from the balance sheet.
4. Comparisons of these ratios for different periods.
5. Comparisons of these ratios with composite ratios for an industry.

Such statistics, properly tabulated, analyzed, and charted, form a fairly satisfactory means of evaluating the capital position of a business. All this is predicated, of course, on the assumption that the figures contained in the balance sheet and the statement of profit and loss have not been affected by any manipulation or "window dressing."

HOW TO MEASURE CHARACTER

The usual credit mechanism also makes some attempt at measuring the character factor of a credit risk.

This factor is represented by the personal integrity and moral character of the individuals who are the executive heads of an organization. The character position of the business may also be ascertained from its standing in the trade, its relationship with customers, and its observance of ethical business practices.

Soundness in the character factor is of utmost importance, and at the same time the least subject to measurement. Strength in the other elements is unavailing if there is weakness here. Nothing can compensate for it.

Character has been described as "what a man is in the dark," and unfortunately it is very difficult to see in the dark.

A man, little by little, builds up a reputation, and it is this reputation which must be used in forming an opinion of his character. Bit by bit, data in regard to a man's reputation may be gathered together from agency reports, customers, other banks, a survey of his business, and personal and business relations with him, and on this basis—unsatisfactory as it may be—a bank must act.

HOW TO MEASURE MANAGERIAL ABILITY

The vitally important factor in the determination of a credit risk is the effectiveness of management as reflected by a measurement of managerial ability and stability. This is more difficult of measurement than

capital because it is dealing with a much more intangible factor, but it is not so imponderable an element as it is frequently considered to be. Since the bulk of business failures is the result of poor management, similarly a large proportion of charge-offs is the result of a lack of analysis, or improper analysis, of the management factor in the evaluation of a credit risk.

It is in the evaluation of managerial ability that considerable progress must as yet be made, if the drain of credit losses is to be kept at an economic minimum.

The most satisfactory manner of evaluating this managerial ability or capacity factor is by means of an industrial or commercial survey. This survey goes behind the balance sheet and income statements and determines the degree with which the fundamentals of effective management are violated or adhered to.

The science of industrial engineering and the practical application of economics to business problems have, fortunately, now reached a state of development where, through their intelligent use, many of the factors which were formerly considered intangible and impossible of measurement can now be subjected to scientific analysis and actual measurement. Standards of management have been developed by industrial engineers to the point where they may be used in evaluating individual cases.

Such a survey should cover the major points outlined on the following pages.

1. Managerial ability and stability.
   a. The plan of organization.
   b. The definition of duties, authorities, and responsibilities.
   c. The degree of teamwork and *ésprit de corps* of the members of the organization.
   d. The permanency of the organization—a study of the provisions made in case some of the key individuals should leave the organization.
   e. The ability of officers and managers—as reflected by past results, by the handling of unusual problems, and by their degree of vision in anticipating future unusual situations.
   f. The personnel administration policies and methods—the methods of remuneration and promotion, causes of past labor troubles, the present relationship between the management and employees, and so on.
   g. The degree of financial interest in the concern by officers, managers, and employees.
2. Product.
   a. From a marketing viewpoint.
   b. From a manufacturing viewpoint.
3. Markets.
   a. Basis of present sales prices.
   b. Analysis of the degree of profitableness of the various kinds and classes of products.
   c. Methods of distribution.

d. Present and potential market development.
e. The costs of distribution.
f. Relationship with customers and trade practices.
g. Necessity and stability of demand for present products.
h. Possibilities of developing and marketing other products.
i. The value and satisfaction of the products from the point of view of the distributors, dealers, and consumers or users.
j. The service policy and procedures.
k. Character and strength of competition.

4. Production.
   a. Adequacy and adaptability of plants and equipment.
   b. Progressiveness as to production methods.
   c. The cost of making goods.
   d. The efficiency of operations.
   e. The wastes in production.
   f. Production methods and costs as compared with those of competitors.
   g. The balance and availability of inventories.
   h. The patent situation.
5. Methods of control.
   a. Sales.
   b. Production.
   c. Purchasing.
   d. Cost accounting.

e. General accounting.
f. Budgets.
g. Research and analysis.

6. Capital requirements.
   a. For financing receivables.
   b. For inventories.
   c. For manufacturing conversion.
   d. For marketing.
   e. For development work.
   f. For improvements in buildings or equipment.
   g. For fixed assets.
   h. For acquiring other properties or businesses.
   i. For refunding maturing obligations.
   j. For the purchase of an interest in the business.
7. Outside influences.
   a. The position, stability, and trend of the industry as a whole.
   b. The position and stability of the concern under investigation in the industry.
   c. Possible economic changes in the demand and realignment of markets and kinds of products.
   d. Effect of mergers and consolidations.
   e. Effect of tariffs and other legislation.
   f. Possibilities of foreign markets or effect of foreign competition.

A survey of this kind provides the bank with information on which a reasonably sound judgment may be formed in regard to the capacity with which the affairs

of the company are being managed and the future stability of the enterprise. Moreover, such a survey sheds not a little light on the capital and character factors, and when linked with the usual analysis of these two factors, gives a comprehensive picture upon which sound judgment can be based.

HOW LARGE BANKS MAKE ANALYSES

During the past few years a number of large banks whose credit lines are composed of an appreciable proportion of commercial and industrial enterprises have realized the importance of comprehensive studies of large lines of business. In order to accomplish this study they have added to their usual credit-analysis facilities the following:

1. *Industrial service departments.* The personnel of such departments consists of men trained in the practical operations of commercial and industrial institutions, economists trained in analyzing the outside factors which influence single units in any industry, and cost accountants. The work of such departments extends far beyond the analysis of new or "slow" lines. It furnishes a service to customers of the bank in making studies of their business for them, and thereby gives constructive advice to such customers in increasing the stability and earning power of their businesses.

2. *Experienced business men as loan officers.* Such men have had no previous experience as bankers, but they bring with them a wealth of knowledge as to the conditions and management problems of various kinds of industries and businesses. This knowledge is of great aid in the evaluation of credit risks.
3. *Outside experts.* The services of outside experts to aid the bank's officers in analyzing large new lines and "slow" lines of an unusual or complex nature have proved invaluable.

Among the benefits of sound credit policies and administration are the following:

1. The drain of excessive losses is stopped.
2. The risk of large individual losses is greatly reduced.
3. Desirable new clients are not refused and their business lost because of a fear of unknown risks.
4. Loan officers are helped to function more effectively because they are relieved of unnecessary labor and unwarranted fears.
5. The position of the bank in the financial community is strengthened because of its consistent credit policy.

CHAPTER XIII

CONVERSION OF FUNDS

IN CHAPTER XI it was shown that one of the prime functions of the loan administration was to convert deposits and invested-capital funds into various classes of earning assets of a nature and relationship to each other as to produce income rates commensurate with safety of principal and an ample liquidity position of the bank—in other words, manage the conversion for both liquidity and profits.

Declining yields, and the lessons learned during the era of the excessive number of bank failures and the "frozen" condition of many other still surviving banks, has taught bankers to study more intensively the fund-conversion policies and methods and the moneyed position of these banks. Many bankers are now studying the primary and secondary reserves and investment accounts with the object in mind of gradually placing their institutions on a sounder basis of financial position.

What the standards of liquidity should be, vary with local conditions and the nature of the deposit and loan business in each particular bank, but the following illustration indicates the type of set-up to be made a goal to work toward. Actual ratios for each bank vary according to seasonal fluctuations of various

classes of deposits, local loan demands, the size of deposit and loan accounts, the security market, and many other detailed factors.

The illustration presented is of a typical country bank, whose deposits are divided about equally between time and demand, whose chief fluctuations are in public-fund deposits, and about one-half of whose local loan demand is for agricultural purposes, that is, for farming and live stock.

Items	% of Loans and Discounts	% of Secondary Reserve	% of Working Resources
Cash items	.....	.....	10.1
LOANS AND DISCOUNTS			
1. Call money, commercial paper, bankers' acceptances	5.3	.....	.....
2. Prime first mortgages	25.0	.....	.....
3. Local loans—agricultural	37.7	.....	.....
4. Local loans—others	32.0	.....	.....
	100.0		54.8
BONDS AND SECURITIES			
1. "Secondary reserve"			
a. "Free" U. S. government	.....	29.5	
b. State and municipal	.....	15.0	
c. Public utility	.....	16.8	
d. Rails and equipment trust	.....	19.0	
e. Industrial	.....	12.7	
f. Foreign	.....	7.0	
		100.0	21.0
2. General investment account	.....	.....	10.2
Fixed assets	.....	.....	3.9
			100.0

TREND OF COST OF FUNDS AND INCOME RATES

A study of the trend of the interest-paid ratio is of vital importance. The interest-paid ratio is the per cent of interest paid to depositors in proportion to the

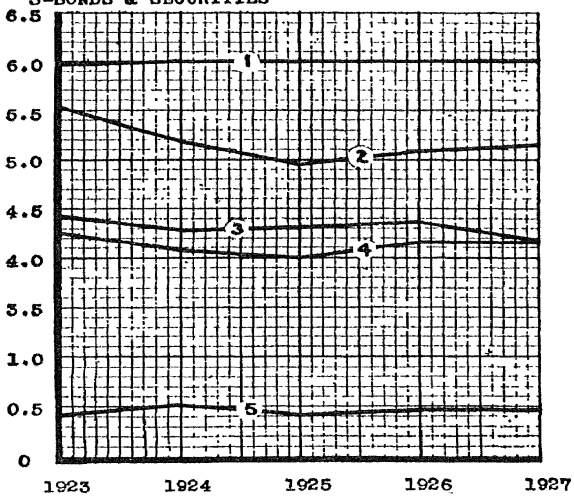
TREND OF

INCOME RATES FROM ASSETS

IN AVERAGES FOR YEARS 1923-27

LEGEND

1-BUILDING EQUITY
2-LOANS & DISCOUNTS
3-BONDS & SECURITIES
4-TOTAL ASSETS
5-CASH & DUE FROM BANKS



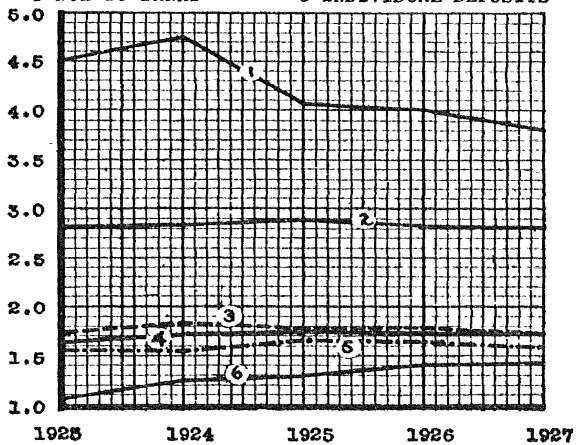
TREND OF

COST OF FUNDS

IN AVERAGES FOR YEARS-1923-27

LEGEND

1-BORROWED MONEY
2-C. D's & SAVINGS
3-DUE TO BANKS
4-TOTAL DEPOSITS
5-TOTAL FUNDS
6-INDIVIDUAL DEPOSITS



interest and discount received. As this ratio increases, the gross profit on funds decreases. That this gross profit on funds is declining is witnessed by the fact that the average interest-paid ratio of all national banks increased from 26.5 per cent in 1921 to 38 per cent in 1927. In some banking areas the increase has been far greater. The ideal situation would be a stabilized interest-paid ratio—that is, interest paid on deposit rates to fluctuate with income rates on earning assets. But interest payments on demand deposits have been going upward, whereas income rates on earning assets have been going downward.

The accompanying chart reflects the trend of cost of various classes of funds and the income rates on various classes of earning assets into which these funds were converted. A continuous analysis of this nature, broken down into detail, would be of great aid to bankers in formulating their fund-conversion policies. A detailed breakdown on local loans, for example, would reflect the following:

Rate	Dollars	Per Cent of Total
7	$ 342,800	15.6
6½	480,500	22.0
6	740,700	34.0
5½	310,000	14.2
5	175,600	8.1
4½	132,400	6.1
	$2,182,000	100.0

A similar analysis can readily be made of the bonds and securities. Banks operating a daily accrual

system would have no difficulty in presenting such an analysis each day to the loaning officers.

SIZE OF LOAN LINES

Another analysis which is of aid in the formulation of loan-administration policies is a size classification of loan lines of such a nature as that illustrated in the table.

SIZE CLASSIFICATION OF LOAN LINES

CLASS	NO. OF LINES	PER CENT OF TOTAL NO.	AGGREGATE BALANCES	PER CENT OF TOTAL BALANCES
Below $ 100	163	12.3	$ 11,437	0.3
$ 100— 300	412	31.1	87,523	2.9
300— 500	317	24.0	117,810	4.0
500— 1,000	130	9.9	97,463	3.2
1,000— 2,000	111	8.4	143,572	4.8
2,000— 5,000	98	7.4	311,270	10.4
5,000— 10,000	41	3.1	326,560	10.9
10,000— 25,000	27	2.0	398,412	13.3
25,000— 50,000	15	1.1	593,211	19.7
Over 50,000	8	0.7	911,740	30.5
	1,322	100.0	$2,998,998	100.0

It will be observed that small loans of less than $300 comprise 43.4 per cent of the total number, but only 3.2 per cent of the dollars. It is a known fact that the income from such small loans, if handled on a "straight" local-loan rate, is insufficient to pay for the cost of funds and the handling cost. Hence many banks have applied a service charge on small loans, or placed them on an industrial-loan basis; that is, they discount them and apply a monthly installment repayment plan so that the net rate is appreciably above the "straight" rate.

Usually, the larger the line, the less is the loan rate, for large lines are considered prime-rate lines. Whether or not the credit risk is the same for a large line as for a small one is another question, but an over-concentration in large lines at prime rates may seriously affect the average income rates. However, this is usually offset by a lower loan-administration cost per $100 of loans.

A size classification gives a relatively good view of the credit-analysis problem and how to organize the credit-analysis facilities. In the illustration given, an intensive analysis and control of the lines above $2,000 would involve a study of only 189 lines, but this would control 84.8 per cent of the dollars of local loans involved.

CLASSIFICATION OF LOCAL LOANS BY NATURE OF THE BUSINESS OF THE BORROWER AND SECURITY

This type of classification is of great value in obtaining the economic and security distribution of loans and, as such, clearly indicates the degree of over- or under-concentration of loan lines. The table on the opposite page indicates the method.

This analysis is supplemented by a similar classification of charge-offs for a number of years back and of slow and doubtful lines as reported by the bank

examiners. This indicates what specific groups have had a disastrous history and what ones should be carefully watched.

	No. of Lines	Dollars	Per Cent of Group Total	Per Cent of Total Local Loans
INDIVIDUAL				
Unsecured	112	$ 83,500	15.8	
Endorsed	81	62,100	11.9	
Secured by marketable collateral	73	114,300	21.7	
Secured by local collateral	118	172,500	32.8	
Secured by real estate	62	93,200	17.8	
	446	$525,600	100.0	19.2
FARMERS				
Unsecured	18	$ 38,500	6.9	
Endorsed	12	22,800	4.1	
Secured by chattel mortgage	142	278,300	50.2	
Secured by real estate	72	214,400	38.8	
	244	$554,000	100.0	20.1
LIVE STOCK				
Unsecured	7	$ 83,500	18.7	
Endorsed	3	27,200	6.2	
Secured by chattel mortgage	62	218,700	49.2	
Secured by real estate and chattel mortgage	31	114,900	25.9	
	103	$444,300	100.0	16.3
RETAIL STORES				
Unsecured	12	$ 67,800	30.1	
Endorsed	4	23,200	10.3	
Secured by collateral	6	72,800	32.3	
Secured by real estate and collateral	8	61,300	27.3	
	30	$225,100	100.00	16.7

TURNOVER OF LOAN LINES

The underlying liquidity of the aggregate of loans and discounts is dependent upon:

1. The rate of turnover of loan lines.
2. Ratio of compensating deposit balances to loan lines.

3. Per cent of paper eligible for rediscount.
4. Size diversification of loan lines.

The rate of turnover of loan lines is a true test for a classification of loans as to good, slow, and doubtful. A bank should not wait for the annual or semiannual test of this kind made by the bank examiners, for much can happen during the long interval between examinations, but such tests should be made of all large lines once every three months.

In actual practice it will be found, if all loan lines above a certain size are thus analyzed, that a large percentage of the total dollars of loans is covered in but a relatively few number of lines. For example, in small banks the number of lines of $1,000 and over will produce an analysis of 75 to 80 per cent of the total loans in dollars; in larger banks, lines of $5,000 and over will produce a large dollar coverage; in still larger banks, $10,000 and over may be used. To determine the size line of demarcation, a size classification of loan lines should be made of a nature previously illustrated. In this illustration, 189 lines of $2,000 and over represent 84.8 per cent of the total dollars involved.

Since the nature of the business of the borrower has an important effect upon turnover, the range of turnover rates is more significant when a range is determined for each main group of the nature of business of the borrower. The turnover is expressed as a percentage of the difference between the high and low loan

points to the high point during a "cycle" of twelve months. In order to be considered as a 100-per-cent turnover, a line must have been fully liquidated for a period of at least one month. If not completely liquidated for one month, then the lowest point prior to liquidation is taken.

The following table is an illustration of such an analysis:

Range Group Per Cent Turnover	Number of Accounts				
	Banks	Agricultural	Individual	Commercial	Total
None	..	..	10	14	24
1– 5	..	..	4	1	5
6– 10	..	..	4	2	6
11– 15	..	2	1	4	7
16– 20	..	..	2	2	4
21– 25	..	1	1	4	6
26– 30	..	..	3	1	4
31– 35	..	..	1	3	4
36– 40	..	..	1	3	4
41– 45	..	1	1	2	4
46– 50	..	..	2	3	5
51– 55	..	..	2	..	2
56– 60	..	1	..	1	2
61– 65	..	..	..	1	1
66– 70	..	..	1	5	6
71– 75	..	..	..	2	2
76– 80	..	..	..	3	3
81– 85	..	..	..	3	3
86– 90	..	..	1	1	2
91– 95	..	..	..	..	..
96– 99	..	..	..	..	..
100	11	..	10	46	67
Total lines....	11	5	44	101	161

Compensating balances. When a bank maintains average-balance cards, and all banks should maintain these on at least all large borrowing accounts, then the problem of analysis of compensating balances is a simple one. The same lines analyzed for turnover should

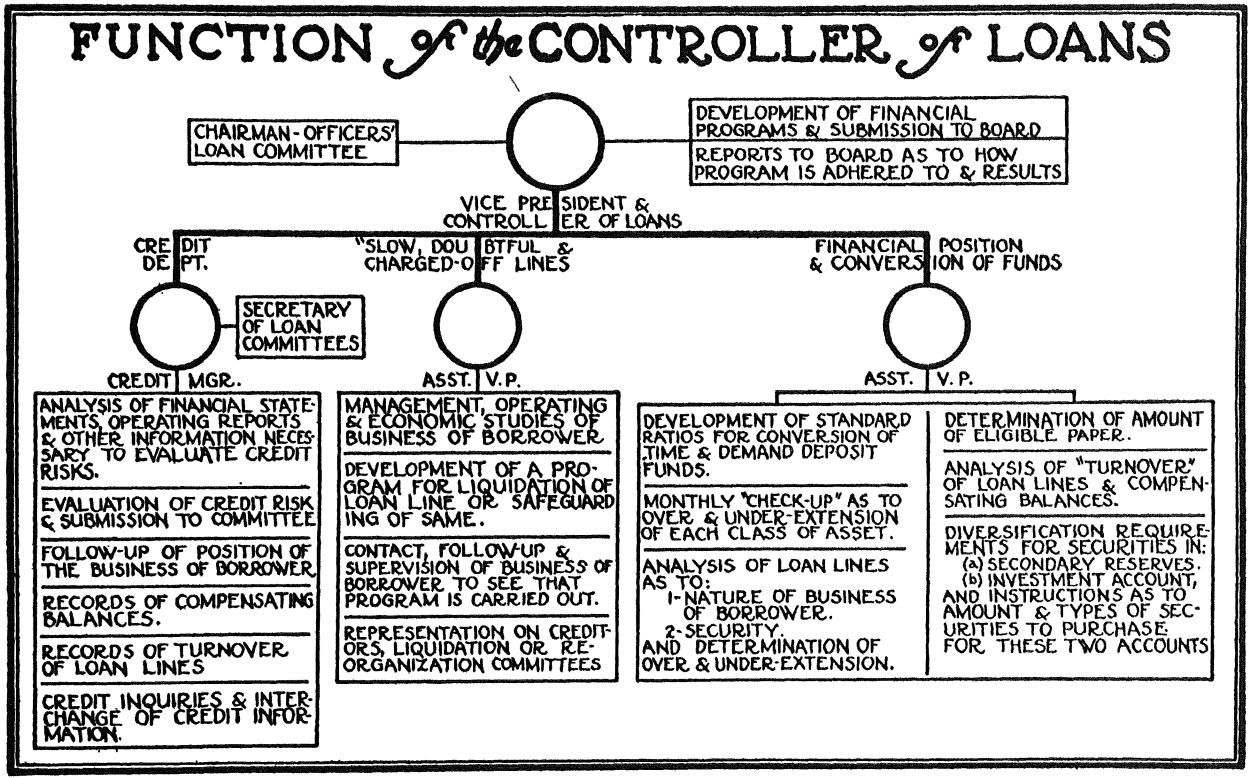
also be tested as to compensating balances. The compensating balance is expressed as a percentage of the average deposit balance to the average loan line for the period analyzed.

The following table is an illustration of this type of analysis:

Range Group Per Cent Deposit Balance to Loans	Number of Accounts				
	Banks	Agricultural	Individual	Commercial	Total
None	1	..	10	12	23
1– 5	..	4	16	14	34
6– 10	..	..	4	15	19
11– 15	..	..	3	7	10
16– 20	..	..	6	12	18
21– 30	..	1	..	15	16
31– 40	..	..	2	7	9
41– 50	..	..	1	4	5
51– 60	..	..	..	..	..
61– 70	..	..	..	2	2
71– 100	..	..	..	3	3
Over 100	10	..	2	10	22
Total.....	11	5	44	101	161

Eligible paper. Since the greater the percentage of eligible paper for rediscount to total loans, the smaller need be the secondary reserve, it is important that the percentage of eligible paper be determined at frequent intervals. This percentage should then be compared with that of the average of other banks in adjacent reserve cities, if the bank is located in a reserve city, or with the average of country banks in that state and adjoining states, if a country bank. If such a comparison indicates that the bank is deficient in such paper, then loans of this nature should be extended.

FUNCTION of the CONTROLLER of LOANS



FUNCTION OF CONTROLLER OF LOANS

In this and previous chapters on loan administration it was indicated that effective loan administration was based upon:

1. The formulation of sound and definite policies.
2. Methods of analysis which indicate the degree with which these policies are adhered to, and the results of these policies.

The application of analysis, or measurement, as to the results of loan operations is a *control function.* The full development of this function is of extreme importance to scientific bank management. Of what benefit is the full development of the control function, which relates to *expense* controls, if control of loans is so ineffective as to result in large charge-offs and a "frozen" condition of assets? Operating expenses, even though somewhat high, have seldom, if ever, caused a bank failure; but ineffective loan control and improper conversion of funds have been the cause of more bank failures, reorganizations, and assessments than any other single factor.

The function of controller of loans should be centralized in every bank in one individual or department. In small banks the function may be only the part-time duty of one individual; in large banks, the controller of loans may need many assistants.

An outline of the activities of this function, as developed to meet the specific requirements of one large

bank, is shown on the chart on page 149. The essence of the plan is that the controller of loans *should make no loans,* but he should be held responsible for every loan *after it has been made.* He must, therefore, have unusual ability in the evaluation of credit risks, and a personality strong enough to convince any loaning officer that if a proposed loan does not meet the requirements as to credit risk and type of loan, the loan should not be made.

CHAPTER XIV

SECONDARY RESERVES AND INVESTMENT ACCOUNT

THE problem of how to secure liquidity of bank assets and yet maintain profits is one to which considerable thought and attention are now being given. Hence a great deal of attention is directed toward the determination of the secondary-reserve and investment-account positions.

A study of the present position of these reserve and investment accounts in hundreds of banks of all types and classes revealed that there is a great variation in the percentages and a nation-wide lack of agreement as to the proper percentages. Cash reserves ran from 5 per cent to 72 per cent; secondary reserves from none to 73 per cent; local loans, from none to 90 per cent; investment accounts, from none to 71 per cent of the bank's resources. Many of the banks studied admitted that they did not have a definite policy as to conversion of funds and the maintenance of proper relationships between the various groups and subgroups of assets.

THE SECONDARY RESERVE

The secondary-reserve account is composed of those income-producing assets whereby funds may be quickly

and easily obtained whenever the primary reserve, consisting of cash in vaults and demand deposits with other banks, has for any reason whatever been rendered inadequate.

Based upon extensive researches of the underlying factors which affect the secondary-reserve requirements, the author developed the following basic laws as to secondary reserves and conversion of funds:

1. The greater the percentage of time deposits to total deposits, the smaller need be the primary and secondary reserves; the greater should be the investment account, local loans secured by marketable securities and prime, legal first-mortgage loans; the fewer should be unsecured local loans.
2. The greater the seasonal fluctuation of deposits (usually only demand deposits are characterized by high seasonal fluctuations), the greater should be the primary and secondary reserve.
3. The greater the percentage of paper eligible for rediscount to total loans and discounts, the smaller need be the secondary reserve.
4. The greater the rate of turnover (liquidation at maturity) of local loans, the smaller need be the secondary reserve.
5. The greater the size diversification of deposit accounts, the smaller need be the secondary reserve. (In the event a large percentage of

the deposit balances are represented by accounts few in number, the withdrawal of a few of these may deplete the primary reserve.)

Since the foregoing underlying factors vary in practically all banks, it is obvious that *general* standards as to secondary reserves cannot be applied, and if such general standards are attempted to be applied they may be so divergent from actual necessary requirements as to completely destroy the objective of "management for both liquidity and profits."

In order to determine the size of the secondary reserve for a specific bank, it is obvious that the position of all of the underlying factors, as expressed by the foregoing rules, must be first determined, and from this analysis the size of the secondary reserve determined.

Composition of the secondary reserve. The composition of the secondary reserve is dependent upon a number of factors, each of which must receive due consideration:

1. Safety of principal of each asset is axiomatic.
2. Liquidity, which may be further defined as *marketability,* with *price stability.*
3. Yield or income. If this factor were entirely neglected, then cash in vaults and "due from banks" would meet the needs of the other two factors. This factor cannot be overlooked, but it must be subordinated to the other two factors.

The distribution of specific types of securities in the secondary-reserve account is subject somewhat to the economic fluctuations in underlying value and income of each type and the general economic position of the money and security markets. Based upon the situation that existed in 1928 and early in 1929, the following distribution of secondary-reserve assets was developed through the researches of Dr. Paul M. Atkins, and this has met requirements in many instances where it has been applied:

Type of Security	Per Cent of Secondary Reserve
Commercial paper, bankers' acceptances, called bonds, call money	20
U. S. government securities	30
State and municipal bonds	10
Public utility bonds	10
Investment trust debentures	5
Railroad bonds and equipment trust certificates	10
Industrial and foreign bonds (Not over 10 per cent in either class)	15
	100

No bonds which are used to secure circulation, to secure deposits, or for similar purposes are to be included in the secondary reserve; such bonds must be available for immediate sale or as a pledge to secure a loan.

Maturity distribution of secondary-reserve assets. The fundamental factor is the proper rotation of maturities. Maturities should be so selected as to have an almost constant flow of maturing paper. This, combined with the availability of United States government

securities as a basis for securing short-time loans, should normally meet the calls which may be made on the secondary reserve for funds.

The bond section of the secondary-reserve account should also have rotating maturities. A good standard is that 10 per cent of the total bonds in this account, exclusive of United States government securities, should mature each year. This means that 50 per cent of the bonds will be maturing in five years or less, thus tending to limit any great fluctuation in their prices.

THE INVESTMENT ACCOUNT

Since the purpose of this account is entirely different from that of the secondary-reserve account, the two accounts should be segregated. Assets for the secondary-reserve account should be selected primarily to secure liquidity for the bank; assets for the investment account should be chosen to give the bank income. But it must always be borne in mind that safety of principal is the first consideration, and that for this there is no substitute.

The size of the investment account is dependent upon the balance of funds available after primary and secondary reserve requirements are filled and after local loan demands for choice, well diversified credit risks have been met. Where the outlet for choice local loans is small, the investment account is large, and vice versa.

Assets included in this account should be purchased on the basis that they will not be sold unless it appears to be to the advantage of the bank to sell them; that is, they will not be sold under the necessity of obtaining cash funds quickly. Because of this, the general rules for building up an investment account are more flexible than those which should be followed in building up a secondary-reserve account. Advantage may be taken of maturities which are relatively low priced at any particular time, and also the purchase at any given time of a large proportion of a type of bond which at that moment represents a better value than other types of bonds. Since the position of specific types of bonds may vary as economic conditions vary, it is not possible to set a rigid standard of diversification by types of bonds which will hold true for all time. Based upon 1928 and early 1929 bond-market positions, the following distribution of investment-account bonds was developed by Dr. Paul M. Atkins:

Type of Bond	Per Cent of Investment Account
Municipal bonds (local special assessment)	5–10
Public utility bonds	15–30
Railroad bonds	5–10
Industrial bonds	10–30
Investment trust debentures	5–15
Foreign bonds	10–30
Real-estate bonds	5–10

The following typical example of a financial policy and conversion-of-funds program (tables on page 158

and on page 159) was developed to meet the requirements of all of the underlying factors of a specific bank.

CONVERSION OF TIME DEPOSITS

ITEMS	PER CENT OF AVERAGE TIME DEPOSITS	
Cash, due from banks, exchanges, etc. (the primary reserve)		7
LOCAL LOANS AND DISCOUNTS		
Loans secured by marketable collateral	20	
Prime, legal, first-mortgage loans	25	
Loans secured by other good collateral, not including real estate	10	55
SECONDARY RESERVE		
Commercial paper, bankers' acceptances, etc.	10	
U. S. government securities	8	18
INVESTMENT ACCOUNT		
Municipal bonds (local special assessments)	4	
Public utility bonds	5	
Railroad bonds	3	
Industrial bonds	4	
Foreign bonds	2	
Investment trust debentures	2	20
		100

In actual practice, at the end of each month the average position of each type of asset for the month is determined. The averages of the time and demand deposit and available invested-capital funds are determined, and the standard diversification percentages applied to these. Over- and under-extensions for each class of asset are then shown, and an attempt is made to bring them to "balance" during the current month. About twice each year a test is made of the underlying factors which influence the standard percentages, and if any decided change has taken place in

any factor, the standard percentages are adjusted accordingly.

CONVERSION OF DEMAND DEPOSITS AND AVAILABLE INVESTED CAPITAL FUNDS

(Available invested capital funds consist of the difference between invested capital and fixed assets)

ITEMS	PER CENT OF AVERAGE DEMAND DEPOSITS AND AVAILABLE INVESTED-CAPITAL FUNDS	
Cash, due from banks, exchange, etc. (the primary reserve)		15
LOCAL LOANS AND DISCOUNTS		
Loans secured by marketable collateral	10	
Loans secured by other good collateral	10	
Commercial and agricultural loans (diversified according to nature of the business of the borrower—per separate schedule; bulk of agricultural loans to be secured by crop and chattel mortgages)	30	50
SECONDARY RESERVE		
Commercial paper, bankers' acceptances, etc.	12	
U. S. government securities	10	
State and municipal bonds	2	
Public utility bonds	2	
Railroad bonds and equipment trusts	2	28
INVESTMENT ACCOUNT		
Municipal bonds (local special assessments)	2	
Public utility bonds	1	
Railroad bonds	1	
Industrial bonds	1	
Foreign bonds	1	
Real-estate bonds	1	7
		100

By this method a definite financial policy has been established and approved by the board of directors. At the end of each month the board of directors is furnished with a definite statement which indicates precisely the degree to which this financial policy has been adhered.

CHAPTER XV

THE CONTROL FUNCTION

BY DEFINITION, "control" means to check or regulate; exercise restraining or directing influence over; hold from action; curb. Whereas "audit" means a formal or official examination and authentification of accounts.

Because of a confusion in these definitions, a confusion has been created as to the nature and object of the work of the comptroller and of the auditor in banks.

The control function in bank management is that function which measures the adherence to policies and the degree of results produced by all other functions and divisions, controls the earnings of the institution, and safeguards its assets.

The board of directors, and its appointed committees, should act as administrators, that is, define policies.

The comptroller should represent the administration and see that these policies are adhered to by the executive or operating divisions, which divisions are represented by the chief executive and other operating officers.

The auditor represents executive verification. He should also be a representative of the board of directors, or of its appointed committees.

It is difficult to trace the history of the origin and development of audit and control work in the general banking field. However, its development is quite readily traceable in banks which have grown from a small beginning to large institutions and during that growth period have gradually developed such work to an unusually high state of perfection.

Practically from its inception some degree of audit work was performed by the bank's personnel. This usually had the form of "proofing" and reconcilements with deposit accounts and "due from bank" accounts. In many small banks today the audit function does not extend beyond this. Since such work is usually performed by operating personnel, it can hardly be termed "audit" for, in many instances, it is not independent verification.

Since practically all banks are supervised by regulatory bodies, the small bank placed practically all of its reliance as to verification on the examiners representing these regulatory bodies, hence the efficiency of verification was dependent almost entirely upon the capability of the bank examiner.

In many instances, such examinations are made but once a year, and much can happen between examinations. Also, the most vital part of such examinations is not so much in verifications as in appraisals; the bulk of the work consists in evaluating assets, principally loans and discounts.

A realization of the fact that a bank examiner cannot detect everything in the course of the type of examination which is usually made, and that the time interval between examinations is too great, has caused many small banks to organize an "audit committee." The representatives of this committee are usually non-officer directors. The members of this committee may undertake the audit work themselves or engage some outside auditor to aid them. At best, such a procedure is only periodic and often very perfunctory, but this practice is still common in hundreds of small banks.

HOW AUDITING DEVELOPED

As the banks grew in size, and many times as an outgrowth of some "difficulty," the importance of independent verification became realized and the foundation for an internal, independent verification function was laid. It usually commenced as a part-time function of one individual, and in many instances the auditor was a graduate general bookkeeper or teller. The rapidity with which this function then developed was dependent upon the conception of the importance of the work by the directors and senior officers and the capability and personality of the auditor.

Up to this point the work of the auditor was practically limited to verifications and reconcilements, but in some banks it did develop into comprehensive audit programs of both a continuous and a periodic nature,

and to carry out this program, the auditor called to his aid a number of assistants. When correctly organized, the basic function of this auditing department is to make certain that every transaction of the bank is handled with the same precision and integrity that it would be handled with were it possible for the chief executive officer to take care of each detail.

The auditor, no more than the executive, cannot accomplish personally a perfect handling and recording of all transactions, but if he fails to find and to report the slightest deviation from perfect attainment he has, to just that extent, failed to be a good auditor. From the auditor's point of view, the examination must be rigid and the report uncompromising.

HOW THE CONTROL FUNCTION ORIGINATED

The control function is of relatively recent origin. It grew out of the necessity for the development and maintenance of high earning power, during the period of diminishing rates of income, increases in operating expenses, and increases in the interest-paid-on-deposits ratio. It usually commenced with a more careful scrutiny of expense items.

This scrutiny led to an analysis of methods and of ways and means for reducing operating expenses and for controlling them. A great deal of this work was assigned to the auditing department; hence in many banks the control function was, and is, an extension

of the audit function, and the auditor became the comptroller.

Present practice, therefore, generally consists of uniting the control function and the audit function into one division, with the head of this division known as the comptroller. He has an auditor and a manager of analysis and planning as his assistants, but within this division there should be a strict separation between verification work and control work.

The control function has developed into an executive function, whereas the audit function must remain a verification function and hence have nothing to do with original entries.

In attempts to study and control expenses, it was but natural that the comptroller employ cost-accounting methods and determine the degree of profit and loss of various departments and operations, as distinguished from "lump sum" or aggregate accounting methods which gave the answer only for the institution as a whole.

After departmental and unit costs became known, the next step was to devise ways and means for reducing and controlling these costs. This led into a study of best methods of operation, and planning and installing these methods. It led into comparative studies and costs of other banks. The control function, therefore, developed far beyond a pure analysis function; it became the planning and installation functions for

better methods and equipment, and hence a service function for all other banking divisions and departments.

WHAT THE CHART SHOWS

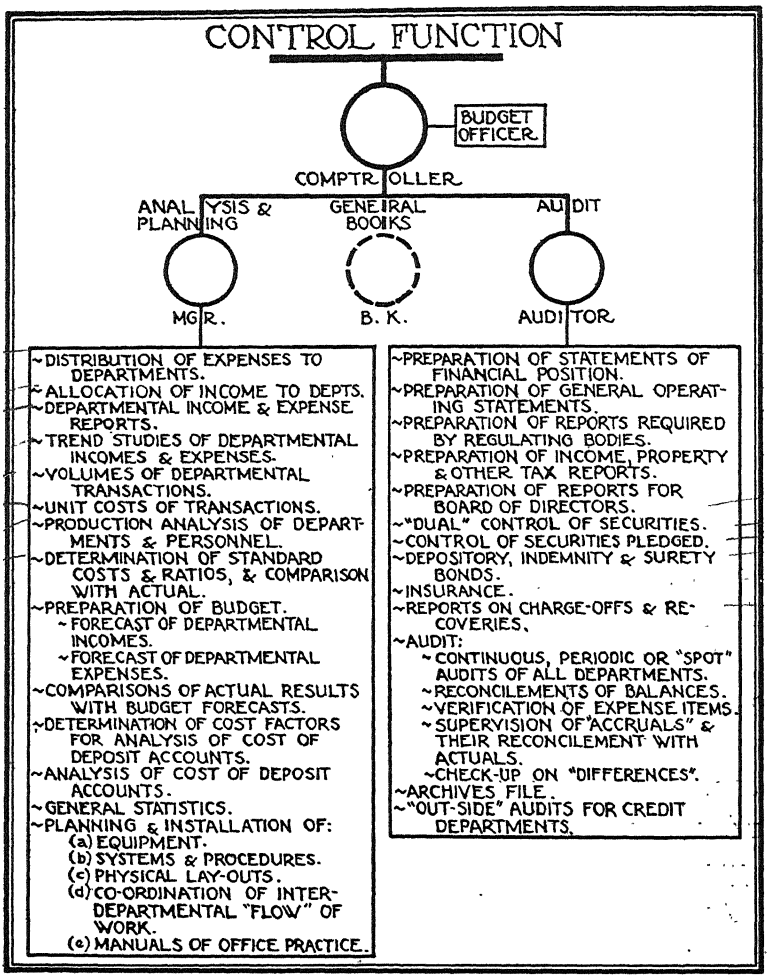
The chart on page 166 illustrates some of the major activities of a fully developed control function, divided into its two "wings": analysis and planning, and audit.

There is some difference of opinion as to whether or nor the general books should be placed in this division. It is certain that they should not be placed under the auditor. Since the general books are the source of a great deal of original data upon which analytical studies and reports are based, from a practical point of view it has been found more feasible to have this operation under the supervision of the comptroller than under the supervision of some other department.

Even though the comptroller is the senior executive officer over the auditor, yet the auditor, upon discovery of "differences" and improper handling of transactions, reports on such matters, as a strictly independent function, to the board of directors or its appointed committees.

As outlined, the comptroller becomes an executive officer. He is a direct representative of the board and its committees. His duties are to see that their policies and instructions are observed. He exercises control of policy, methods, and systems, and guards against

a mistaken or unwise policy and against improper functioning of a department or individual. In other



The major activities of a fully developed control function

words, he keeps the executive bodies in touch with the details of operation, so they may be in a position

intelligently and competently to carry out the policies of administration.

When fully developed and properly administered, the control function is the most effective mechanism yet devised for increasing and stabilizing the net profits of a bank.

It will answer specifically the questions: "What have we accomplished?" "Where have we failed?" "Who is responsible for successes and for failures?"

Like everything else, the success of this function is largely dependent upon the ability and personal characteristics of the comptroller. The function requires a combination of both executive and technical ability.

Splendid technologists, without executive ability, have failed in the administration of this function. The comptroller must know his work. At the same time he must be strong enough in personality not to be "submerged" by the other officers and still be tactful enough to obtain the hearty coöperation of all department heads in putting his program into effect.

CHAPTER XVI

DEPARTMENTAL EARNINGS ANALYSIS

A FEW banks, that have developed bond and trust operations, append to a lump-sum operating statement a "departmentalized" statement of income and expenses of these operations. True departmentalized accounting is still so undeveloped that but few banks go beyond such statements.

Such a lump-sum accounting statement yields but one answer—the degree of profit or loss of the entire aggregate. This final answer may appear satisfactory to the chief executive and the directors provided it reflects an anticipated increase over the previous year, but whether or not it is satisfactory from a comparative earning-power standpoint is another question and one that cannot be answered from the figures disclosed on that form of statement.

What every progressive banker desires to know is the degree of profit or loss on every operation, for only through such knowledge can he intelligently direct its affairs. In order to obtain this information it is necessary to institute true departmentalized accounting plans, and to develop these on a fund-accounting basis.

This type of accounting and analysis is relatively new in the banking field, but wherever it has been

applied and intelligently utilized it has been accompanied by phenomenal results. The type of analysis,

TYPE EXAMPLE OF "LUMP-SUM" OPERATING STATEMENT

This schedule illustrates the form of a typical income and expense statement, such as is in use in the majority of banks in the United States.

INCOME	AMOUNT	
Interest received, loans and discounts		$ 750,000
Bonds and securities		410,000
Bank balances		51,250
Service charges and exchange		12,000
Collection charges		15,000
Bond commissions		125,000
Trust fees		50,000
Safe deposit rentals		15,000
Gross income		$1,428,250
INTEREST PAID		
Interest paid, demand deposits	$136,800	
Time deposits	281,250	
Bank balances	72,500	
Borrowed money		
Total interest paid		490,550
Gross profit		$ 937,700
EXPENSES		
Salaries and wages	$350,000	
Advertising	40,000	
Directors' fees	6,000	
Donations	10,000	
Legal expense	3,500	
Premium on fidelity bonds	15,000	
Postage	10,000	
Rent	65,000	
Stationery and supplies	7,500	
Subscriptions and dues	5,000	
Taxes	90,000	
Telephone and telegraph	6,500	
Travel and entertainment	10,000	
Depreciation—furniture and fixtures	15,000	
Miscellaneous expense	7,500	
Total expenses		641,000
Net profit before losses		$ 296,700

to be illustrated, was developed by the author in connection with his *Earning Power Examination of Banks*, for in such examinations it is essential that all

of the underlying factors which affect the profits of an institution be clearly disclosed.

In order to illustrate the method, the lump-sum statement is broken down into its basic elements as shown on the accompanying chart.

In the illustration, the sources of income were as follows:

1. From interest and discounts.
   - *a.* Commercial deposits subject to check.
   - *b.* Due to banks deposits.
   - *c.* Special deposit funds—public funds and others under special arrangements.
   - *d.* Savings deposits.
   - *e.* Invested capital funds.

These are the funds which are converted into earning assets, that is, loans and discounts, bonds and securities, due from banks, from which assets interest income (or dividends) is received.

2. Service charges and exchange are almost entirely due to commercial demand deposit operations, hence are credited as income to "commercial."
3. Collection charges are credited to the collection department.
4. Bond commissions are the only real source of income of a bond department. These are the commissions earned on securities purchased for resale. At times, capital is "borrowed" by the bond department from a fund department, but

Type Example of Departmentalized Operating Statement

Items	Commercial	Country Banks	Special Funds	Savings	Collection	Bond	Trust	Safe Deposit	Invested Capital	Total
Income from earning assets	$ 459,064	$ 161,096	$ 92,055	$ 371,854	$	$	$	$	$ 127,181	$ 1,211,250
Service charges and exchange	12,000	.....	.....	.....	.....	.....	.....	.....	.....	12,000
Collection charges	.....	.....	.....	.....	15,000	.....	.....	.....	.....	15,000
Bond commissions	.....	.....	.....	.....	.....	125,000	.....	.....	.....	125,000
Trust fees	.....	.....	.....	.....	.....	.....	50,000	.....	.....	50,000
Safe-deposit rental	.....	.....	.....	.....	.....	.....	.....	15,000	.....	15,000
Gross income	471,064	161,096	92,055	371,854	15,000	125,000	50,000	15,000	127,181	1,428,250
Per cent of total	33.1	11.3	6.4	26.0	1.0	8.8	3.5	1.0	8.9	100.0
Interest paid on deposits	91,800	72,500	45,000	281,250	.....	.....	.....	.....	.....	490,550
Per cent of gross income	19.5	45.0	48.9	75.6	.....	.....	.....	.....	.....	34.3
Per cent of total	18.7	14.8	9.2	57.3	.....	.....	.....	.....	.....	100.0
Gross profit	379,264	88,596	47,055	90,604	15,000	125,000	50,000	15,000	127,181	937,700
Per cent of total	40.4	9.4	5.0	9.7	1.6	13.3	5.3	1.6	13.7	100.0
Direct operating expense	145,000	30,000	7,500	18,500	12,000	60,000	45,000	8,000	.....	326,000
Per cent of gross income	30.8	18.6	8.1	5.0	80.0	48.0	90.0	53.3	.....	22.8
Prorated-fund conversion expense	43,585	15,295	8,740	35,305	.....	.....	.....	.....	12,075	115,000
Per cent of gross income	9.2	9.5	9.5	9.5	.....	.....	.....	.....	9.5	8.1
Prorated-institutional expense	68,070	16,830	4,180	6,270	1,070	10,120	2,470	990	90,000	200,000
Per cent of gross income	14.5	10.4	4.5	1.7	7.1	8.1	4.9	6.6	70.8	14.0
Total expenses	256,655	62,125	20,420	60,075	13,070	70,120	47,470	8,990	102,075	641,000
Per cent of gross income	54.5	38.5	22.1	16.2	87.1	56.1	94.9	59.9	80.3	44.9
Per cent of total	40.0	9.7	3.2	9.4	2.0	10.9	7.4	1.4	16.0	100.0
Operating profit before losses	122,609	26,471	26,635	30,529	1,930	54,880	2,530	6,010	25,106	296,700
Per cent of gross income	26.0	16.5	29.0	8.2	12.9	43.9	5.1	40.1	19.7	20.8
Per cent of total	41.3	8.9	9.0	10.3	0.6	18.5	0.9	2.0	8.5	100.0
Average net funds employed	$10,000,000	$ 3,500,000	$ 2,000,000	$ 7,500,000	.....	.....	.....	.....	$ 2,500,000	$25,500,000
Profit per $100 of net funds	$1.226	$0.756	$1.332	$0.407	.....	.....	.....	.....	$1.004	$0.907

any income from this capital in the form of interest is not true income for the bond operation.

5. Trust fees collected for the handling of trust accounts, safekeeping, escrows, and other services performed by the trust department.
6. Safe deposit rentals.

What a banker especially desires to know is: "What rate of profit does the institution earn on its various groups of funds—commercial deposits, country-bank deposits, savings deposits, special deposits?" The illustrated method gives the answer.

In "fund departments," four groups of costs are involved:

1. Interest paid on deposits. The difference between this and the "income from earning assets" is the "gross profit margin" on funds employed, from which margin must be deducted the cost of handling the funds and leave an operating-profit margin sufficiently great to provide for losses on earning assets and a fair rate of profit for the stockholders.
2. Direct operating expenses. This group of expenses is related directly to the cost of handling and recording the deposit-fund transactions.
3. Fund-conversion expense. This is the expense involved in converting the deposit and invested-capital funds into earning assets, and the

administration of these; in other words, loan-administration cost.

4. Institutional expense. This is so-called overhead expense not directly related to any one of the foregoing three expense groups.

The final answer, in this method of fund accounting, is the profit per $100 of net funds. This rate should be identical in all banks for each group of deposit funds, provided the average rate of income on earning assets, the diversification of earning assets, the number of transactions per $100 of deposit balances, and the interest-paid rate are nearly alike.

If the interest-paid rate and the policy as to the payment of interest on demand deposits vary, then the "interest paid on deposits to gross income ratio" will vary.

If the diversification of earning assets by types varies, then the "fund conversion expense to gross income ratio" will vary.

If the number of transactions handled per $100 of deposit funds varies, and given equal efficiency of cost of handling a transaction, then the "operating expense to gross income ratio" will vary. From this it can readily be seen that the comparison of an over-all expense ratio of one bank with another bank, or with aggregates of a number of banks, is relatively meaningless in efforts to determine subnormals of expense groups.

A detailed analysis by this method of many banks revealed that a certain profit rate per $100 of funds should be anticipated, and justified, for a high earning-power rating. In the illustration presented on page 171 this rate of $0.407 per $100 of savings deposits was subnormal, but its subnormality was entirely in the "interest paid on deposits to gross income ratio." This institution was on a 4 per cent basis. This rate was later reduced to 3½ per cent, with a resultant normal profit rate.

For non-fund departments, the earning power barometer is the ratio of operating profit to gross income. In the illustration this was satisfactory for the bond and safe-deposit operations, but subnormal for the trust department, due to its relatively short history.

No elaborate system is necessary to develop this type of analysis. Beyond an expense ledger, which distributes each item of expense to the proper department, the other work is purely analytical work and can readily be performed by a capable comptroller.

The advantages of this type of income and expense analysis over the "lump-sum" method may be stated as follows:

1. It discloses the rate of profit of each class of activity, and the factors which enter into this rate.
2. It serves as a basis for determining sound policies as to departmental operations.

3. It measures the degree of managerial ability of department heads.
4. It makes possible a more intensive control of departmental expenses.
5. It makes possible the introduction of a scientific budgetary control.

BUDGETARY CONTROL

A correctly compiled and properly administered budget will accomplish the following:

1. Substitute definite facts and figures for guesswork, intelligent planning for blindfold fumbling.
2. Create coöperation and, what is more important, enforce it.
3. Materialize contemplated actions in such a way that the results of these actions become known before the actions themselves are set in motion.
4. Restrain unwise expansion.
5. Provide a unified plan of operation—a financial working plan—which is of utmost importance in the management of any enterprise.

The compilation of a budget must commence with a clear statement of the objective, that is—"What are we to accomplish during the coming budget period, and what is to be the position of the bank at the end of the period?" The two major factors of the objective of the institution as a whole are (*a*) a definite amount in dollars, or a definite percentage to invested

capital, of net profits, and (*b*) a definite financial position, and a definite volume.

In order to determine the objective of the aggregate, it is necessary to determine the objective of each operation or department.

Where the previously illustrated method of departmentalized fund accounting has been established and operated over a period of time, the trend of comparable factors for each operation can be obtained. The problem of the determination of the objective of each operation, both as to income and operating expenses, then becomes simplified and an accurate forecast can be made.

Up to the present time the establishment of a so-called budget in a bank has been limited practically to a statement of *expense allowances* by expense groups, generally for the institution as a whole or, in some instances, by departments other than banking departments, and aggregate for the banking department. It is obvious that a true budget must forecast and set the incomes for each operation, as well as the expenses. Otherwise the objective, the profit goal of each department, is not determined. The setting of expenses is not true budgeting but is simply *expense control.*

In most instances the history of past expenditures is used as the major, and sometimes the only, factor in the determination of expense allowances. If, therefore, one objective is to *reduce expenses,* and a flat

per-cent reduction is employed for all departments, efficient departments are penalized and inefficient departments are actually not controlled in the proportion which they should be.

An ideal expense-control budget would be one where each item of expense in each department is set, based upon *standard operating expense ratios*. In practice, this becomes the ideal goal. It is realized, however, that some time must elapse, in some departments, to alter conditions so that standard ratios can be reached. In such instances a "transitional" budget is also set, applicable for a certain length of time.

For fund departments, such as commercial accounts, savings deposits, and country-bank deposits, the forecast of *income* is made from the data furnished by the business-development department as to the average deposits of each class to be anticipated, and by calculations made by the loan-administration division as to the classes of assets into which these deposits will be converted and the rate of income from interest and discount. The loan-administration division also determines the rate of net losses on loans and discounts, bonds and securities, to be set up as a reserve for losses for the budget period.

The bond department makes a market analysis, sets a "sales quota" for various types of securities, and forecasts the trading-profit margin (which will be its gross income) on the securities to be sold.

Fees to be realized from trust accounts are the most difficult to forecast, especially in "unseasoned" trust departments, and some latitude is given for such estimates.

Forecasts are also made as to income for all other income sources, such as safe-deposit vaults, exchange, collections, foreign exchange, and so on. Each department manager is supplied with the actual operating expenditures of the prior period and asked to forecast the expense requirements of his department under conditions of the income forecast.

All departmental forecasts as to incomes and expenses are submitted to a budget committee. The operating officer of the budget is usually the comptroller, for the duty of the final setting of the budget and then the comparison of actual results with budget forecasts rests upon this official. The chief executive should be the chairman of the budget committee for, in the final analysis, responsibility for all results rests upon him and hence he, more than any other officer, should be interested in the successful conclusion of the program as set by the budget.

In the establishment of budgetary control it should be borne in mind that, although a budget acts as a brake on *unwise* expenditures, it should not be so restrictive as to prevent the taking of a *profit* advantage, which could only be made possible through an expenditure beyond that specified in the budget.

CHAPTER XVII

ANALYSIS OF THE COST OF DEPOSIT ACCOUNTS

IN CHAPTER XVI, in the type example illustrated, it was indicated that the operating profit per $100 of average commercial deposits was at the rate of $1.226 per annum. This was the rate on an aggregate of $10,000,000 of such deposits.

This aggregate is made up of thousands of checking accounts, and the rate of profit (or loss) on each one of these accounts varies, for the condition which affects the profit or loss in each individual account varies.

In this aggregate of thousands of accounts, many accounts reflect a loss, others but very little profit, and but relatively few reflect a rate of profit in excess of the average rate of the aggregate.

In many banks it has been found that less than 15 per cent in number of the total accounts carry the losses sustained on unprofitable accounts and make bank dividends possible. Hence, in order to determine the true situation of the aggregate, it is necessary to determine the degree of profit or loss contribution to the aggregate by the individual accounts which comprise the aggregate.

To accomplish this, it is necessary that the income and cost factors which influence the profit of an

individual account be determined, evaluated, and applied. This method is termed "analysis of the cost of deposit accounts."

The cost, or expense, groups which enter into the analysis of the cost of the *aggregate* of commercial-department deposit funds, illustrated in chapter XVI, are identical to those entering into the analysis of a specific deposit account. These are:

1. *Interest paid on deposits.* This expense applies only to such accounts as carry interest, hence it is obtained and applied in the customary routine manner.
2. *Direct operating expense.* This is the expense involved in the handling and recording of the transactions of deposit accounts and the supervisory expense over such operations. The measurement is the unit cost per deposit and withdrawal transactions as represented by the cost of operations of
    a. Checks on us.
    b. Clearings checks.
    c. Transit checks.

There exists a difference in the handling cost of each of these three classes of checks, and these costs vary in practically every bank. Many banks are employing estimated costs for such items or are using the costs of another bank (which may or may not also have been estimated).

How erroneous and misleading it is to use such costs is shown by the fact that on such an item as cost of "checks on us" variations of from as low as 1¾ cents to as high as 7 cents have been found in various banks analyzed under identical cost-finding methods. Industry would consider it ridiculous to apply the unit costs of one factory to another factory manufacturing the same product, in order to determine the profit of the second factory—still this is being done by many banks in connection with the analysis of cost-of-deposit accounts.

3. *Fund-conversion expense.* This is the expense involved in converting the loanable balance of an account into earning assets and in administering these earning assets. This cost has no relationship to the activity of a deposit account. It is determined, stated, and applied as "cost per $1,000 of loanable balance." This cost rate also varies tremendously in different banks. Variations in this cost from as low as fifteen cents to as high as sixty cents per month per $1,000 of loanable balances have been found.
4. *"Institutional" expense.* This consists of expenses not classified in either of the three foregoing groups—that is, expenses which cannot be charged directly to the work of the three groups.

A large part of this expense is usually represented by "institutional" advertising and business-development

work. It is related neither to the activity nor to the size factor of an account.

It is debatable whether or not a deposit account should be penalized by sharing a proportion of this type of expense. It is certain, however, that the profit rate of a deposit account should be ample to carry its proportion of this type of expense and still yield a fair profit.

5. *Subsidiary expense.* This expense is applicable only to such accounts as require a special service beyond that of handling the checks-drawn-and-deposited activity, such as non-reimbursed exchange and collection charges, special handling of currency, cost of depository bonds, and so forth.

RATE OF INCOME TO BE APPLIED ON LOANABLE BALANCE

Only the loanable balance is available for conversion into earning assets. Two deductions are necessary from the "book balance" to obtain the "loanable balance."

1. *"Float."* Uncollected items in transit are to be deducted, since such funds are not available for conversion into earning assets. Average book balance less average "float" gives the average net balance for the month.
2. *Non-converted ratio.* Not all of this net balance is converted into assets which yield an income

from interest. Part of this net balance remains as "cash reserve."

In practice, for member banks of the Federal Reserve System, this ratio is usually the legal reserve for demand deposits plus the percentage of "cash in vaults" to net deposit funds.

Funds to be converted into income-producing assets lose their identity as between the funds of each individual account. One cannot assume that the funds of one individual account are converted into a loan yielding 6 per cent, those of another into a bond yielding 5 per cent, or those of another placed into the "due from banks" account yielding 2 per cent.

It is necessary to determine the average yield on all interest income-producing assets (loans, bonds, and securities due from banks) and apply this average rate to the loanable balance of an account to determine the dollars of interest income from the deposit funds of the account.

After applying the foregoing income rates and costs, the answer will be the dollars of profit or loss for that account for the time period involved—usually a month.

This profit or loss in dollars should be translated into "profit or loss per $1,000 of net deposit balance." This ratio will then serve as a measurement of the comparative rate of profit of the various accounts.

In the chart on page 171 the average operating profit per $100 of commercial funds was given as $1.226 per

year. This would be at the rate of $1.02 per $1,000 of net balance per month. It is obvious, therefore, that any account whose profit rate is less than this is diluting the average profit for the commercial department, and hence is the line of demarcation between normal and subnormal accounts, from a rate-of-profit point of view.

ACCOUNTS SUBJECT TO ANALYSIS

The following size classification of checking accounts represents a typical condition which exists in many banks:

Size Classification	No. of Accounts	Per Cent of Total No.	Aggregate Balances	Per Cent of Total Balance
Under $ 50	1,573	39.3	$ 26,820	0.9
$50– 100	589	14.7	42,907	1.4
100– 200	648	16.2	91,173	3.3
200– 500	664	16.6	206,893	7.4
500– 1,000	227	5.7	157,926	5.7
Over 1,000	301	7.5	2,268,434	81.3
Totals	4,002	100.0	$2,794,153	100.0

The 39.3 per cent in number of the accounts had an average balance of but $17 per account. Under normal conditions, all of these accounts would show a loss even with no activity. A realization of the loss in handling small checking accounts has made the application of the service charge popular.

The size of the account is not the basis for determining the profit or loss line of demarcation in account analysis. The loss sustained through the cost of handling several very active accounts, which may

have large balances, may be far greater than the loss from several hundred small accounts.

In the classification, 301 accounts of over $1,000 represent 81.3 per cent of the total deposits. Hence, if each one of these accounts had a normal rate of profit, the bulk of the deposit business would be on a satisfactory basis.

Accounts which should be analyzed are:

1. All accounts upon which interest is being paid. The amount of interest paid should be based upon the profit margin after deducting the cost of the activity of the account. By analysis, the amount of "free balance" can be accurately determined.
2. The deposit accounts of all large borrowing customers. The "compensating balance" should be sufficiently large to make the deposit account profitable.
3. Accounts characterized by high activity in relation to net balance. It is this type of account which is usually unprofitable or subnormal, regardless of the size of the book balance carried.

TREATMENT OF UNPROFITABLE ACCOUNTS

The treatment of unprofitable accounts usually consists of presenting to the customer a cost analysis of his account and a discussion as to what will make such an account desirable to the bank. Many commercial

customers, when presented with such an analysis, will admit that a satisfactory banking connection should be one that is mutually profitable.

Interest-bearing, unprofitable, or subnormal accounts can usually be made profitable by an adjustment of the interest arrangement.

Non-interest accounts, whose activity is too great in proportion to the balance carried, can be made profitable in one of two ways:

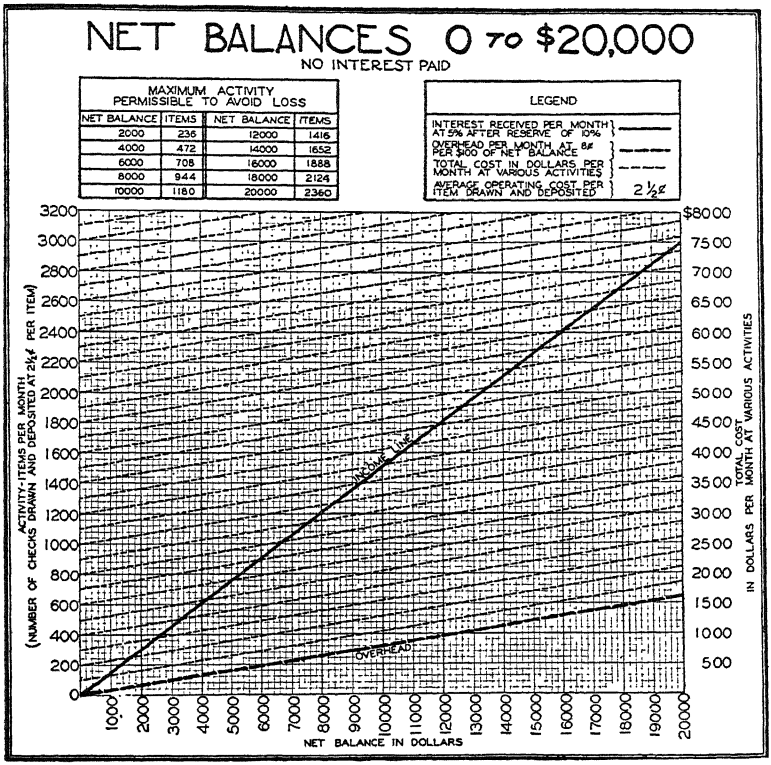
1. By increasing the average balance of the account. Such a remedy is a deposit builder.
2. By applying a "handling" or service charge, based upon the number of items handled in excess of a normal amount.

ILLUSTRATION OF APPLICATION

The chart on page 187 illustrates a method which is helpful in aiding the officers of banks to apply a rapid test as to the degree of profit or loss of a present account, or of a prospective account. The chart illustrated is based upon the cost factors which exist in a specific bank, and since these vary in different banks, the reader should not apply these costs to his own institution. If the equivalent cost factors are determined in a bank, it is then not difficult to construct such a chart based upon these costs.

A difference, of course, exists in the handling cost of the three types of checks — "on us," clearings, and

transit — but rather than complicate the chart with these differences, the average cost per item drawn and deposited is used. In actual analysis of each account,



This chart illustrates the method of estimating the profit or loss from an account

a differentiation is made between the three classes of checks.

The chart is interpreted in the following manner:

The "income line" is the line of demarcation between profit and loss.

Given the number of items of activity per month, the minimum net balance necessary to offset the cost of this activity is determined as follows. From the amount of activity position shown vertically on the left-hand side of the chart, follow the sloping, dotted activity line to the point where it meets the "income line"; then drop down vertically from this point to the "net balance in dollars" on the bottom horizontal line. This gives the minimum net balance required to offset the cost of this activity. For example, if the activity consists of 1,200 items per month, the dotted line from this point intersects the "income line" at the point of the letter *M* of the word "income." Dropping vertically downward at this point, the vertical line meets the base line at $10,160.

Given the net balance, to determine the maximum amount of activity permissible, reverse the foregoing, that is, project upward from the "net balance in dollars" line to the "income line." At this point of intersection, project to the left along the nearest dotted activity line to its intersection with the left-hand activity scale.

The right-hand vertical scale line represents the total cost in dollars per month at various activities, as represented by the intersection of the dotted activity lines with this line. Hence, calculate the net income on loanable balance on the loanable balance of any account. From this income deduct the total cost of

handling the account as determined from the right-hand line scale.

The chart is of real value in determining the amount of "free balance" for interest-bearing accounts. Under an ideal case, the amount of "free balance" would be sufficiently large so that the income from it to the bank would offset the cost of handling this account. The bank could then afford to pay a relatively high rate of interest on the net balance *above* the "free balance" calculated as above, and still have a profitable account.

The chart is based upon the cost of a deposit account on which no interest is paid, or without considering the cost of interest paid on an account.

The effect of the payment of interest on checking accounts, in terms of curtailment of amount of activity permissible to avoid loss, is clearly indicated by the following table based upon actual conditions in one bank:

MAXIMUM ACTIVITY PERMISSIBLE TO AVOID LOSS

NET BALANCE	NO. OF ITEMS PER MONTH (CHECKS DRAWN AND DEPOSITED)	
	No Interest Paid	2% Interest Paid
$ 10,000	1,182	357
20,000	2,285	618
30,000	3,421	921
40,000	4,562	1,229
50,000	5,700	1,536
60,000	6,843	1,880
70,000	7,484	2,151
80,000	9,125	2,456
90,000	10,215	2,765
100,000	11,406	3,073

The ratio of interest paid on demand-deposit aggregates to interest and discount received from the assets

into which these deposits are converted, has rapidly increased in practically all sections of the United States. More banks are paying interest on more checking accounts than ever before. Unwise competition for such accounts is the dominant cause of decreasing profit margins. The best method for the scientific control of the situation in a banking community is the establishment of a standard cost, for every factor involved in the analysis of deposit accounts, for all banks in that community. Then have each bank apply this method in the determination of the amount of interest to allow and in applying service charges on large accounts whose activity is so out of proportion to the balance that the account is handled at a loss. It has been shown, in a number of banks, that the net loss incurred in a few large accounts is greater than the total service charges received from the hundreds of small accounts subject to such service charge. It has also been shown, in many instances, that the accounts whose profits actually pay the dividends of the bank are but very few in number, and in many instances these are not the accounts with the greatest book balances.

CHAPTER XVIII

SAVINGS DEPARTMENT OPERATIONS

THE problems of administration and operation of the savings department of a commercial bank are of a different kind and character from those involved in the commercial department. The difference occurs in the dissimilarity of the following functions:

1. Savings departments deal with time deposits whose aggregate is not subject to the fluctuations which occur in demand-deposit aggregates.
2. In current operating expenses, interest paid to depositors plays the major rôle; in demand deposits, a much smaller rôle.

Because of the very much smaller proportion of transactions per $1,000 of aggregate savings balances than per $1,000 of aggregate demand-deposit balances, the operating expense involved in handling these transactions, either as a percentage of gross income or per $1,000 of deposit balances, is far less for time deposits than for demand deposits.

3. The type and diversification of assets into which savings deposits should be converted should vary from those into which demand deposits are converted.

In such states as authorize the formation of pure savings banks, the types of assets into which the

deposits may be converted are prescribed by regulations.

The banking laws of some states specify that the assets into which savings-deposit funds are converted be physically separated from the other assets. Some regulating bodies, therefore, have deemed it a wise measure to place added safeguards around the funds of savings depositors.

In states where such regulations do not exist, it has not been a general practice, on the part of commercial banks operating savings departments, to distinguish between these funds and commercial deposits in their conversion into earning assets.

4. The savings depositor is usually not a borrowing customer, hence savings deposits represent largely an accumulation of funds in a community, of which funds but a very small proportion are utilized for loans to savings-deposit customers, outside of prime real estate first mortgages, for the development of individual housing projects.

PROFITABLE SAVINGS ACCOUNTS

Assuming equality in the base rate of interest paid and its method of calculation, and the same rate of income on the assets into which the savings funds are converted, the factor which affects the comparative operating profit of savings departments is the number

of transactions per $1,000 of aggregate savings deposits during a definite time interval. Under equal degree of cost efficiency in handling a transaction, it is this transaction ratio which governs the relationship of operating expenses (such as salaries, supplies, rental for space, etc.) per $1,000 of deposits.

TRANSACTION RATIOS OF SAVINGS IN SEVENTEEN COMMERCIAL BANKS

SAVINGS DEPOSITS	AVERAGE BALANCE PER ACCOUNT	TRANSACTIONS PER MONTH	
		Per Account	Per $1,000 of Balance
$ 84,000	$570.27	0.4	0.7
173,000	213.55	0.3	1.6
277,000	163.69	0.3	2.0
481,000	66.00	0.3	4.2
780,000	226.42	0.3	1.5
978,000	405.85	0.2	0.4
1,232,000	148.25	0.3	2.3
3,176,000	583.38	0.4	0.6
3,296,000	261.20	0.4	1.5
3,441.000	440.81	0.4	1.0
3,819,000	421.06	0.3	0.8
3,947,000	335.00	0.4	1.2
5,261,000	584.00	0.4	0.7
5,900,000	395.97	0.5	1.4
17,025,000	383.79	0.3	0.9
22,692,000	754.29	0.4	0.5
28,949,000	835.47	0.5	0.5

Note the study reproduced above of the transaction ratios of savings departments of commercial banks in seventeen banks ranging in size of savings deposits from $84,000 to $28,949,000, and of a wide geographical distribution.

It is interesting to observe that the number of transactions per account per month is subject to but little fluctuation, regardless of the size of the total savings deposits or of the average balance per account.

However, the lower the average balance per account, the greater is the number of transactions per month per $1,000 of aggregate savings deposits.

It is therefore self-evident that, other things being equal, the most profitable savings departments are those with the greatest average per account. Deposit-building plans, therefore, should center on increasing the average balance per account.

DAILY FLUCTUATIONS IN NUMBER OF TRANSACTIONS HANDLED

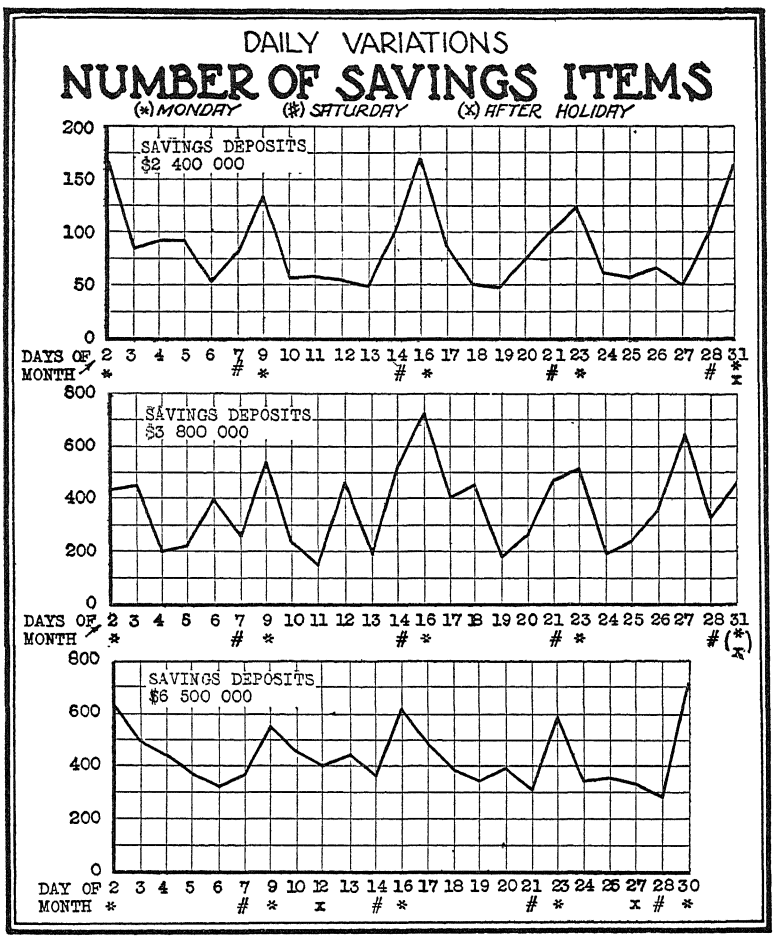
The chart on page 195 reflects the daily variation in the amount of activity as represented by the number of deposit and withdrawal transactions handled by three typical savings departments of three commercial banks.

"Peak" days are usually Saturdays, Mondays, days after a holiday, and the mid-month period. It will be observed that there is a tremendous variation in the amount of work imposed upon the personnel between such "peak" days and other days.

Given, therefore, equal efficiency per individual employee, equal methods of handling transactions, and equal average salary per employee, then the operating cost per transaction is largely dependent upon the manner in which the personnel is mobilized for peak days and for low-activity days.

It is obvious that if the number of personnel of a department is organized on a "fixed departmental

plan," the tendency is to provide sufficient personnel to handle the peak-day load, and that then only a small part of the time of this personnel is utilized during the



other days. It is this difference in the method of mobilizing personnel which accounts, to a great extent,

for the tremendous variation in the average number of transactions handled per employee.

The following is a comparison of this factor in thirteen typical savings departments:

Bank	Average Output per Employee per Month
1	644
2	722
3	727
4	845
5	864
6	1056
7	1102
8	1158
9	1198
10	1286
11	1415
12	1554
13	2127

The high outputs were encountered in such departments as were organized on a normal fixed-crew basis for normal days of activity. On peak days this personnel was increased by transfers from other departments as needed.

AMOUNT OF INTEREST A BANK CAN AFFORD TO PAY

Beyond efficiency of operation in the handling of transactions and the resultant cost, there are two variables involved in the amount of interest a bank can afford to pay:

1. The base rate of interest paid and the net rate. This net rate varies with the method employed in calculating interest on a given base rate.

That there is a great variation in methods of calculating interest credits on the same base rates is evidenced by the fact that the net rate on average aggregate savings deposits on a 3 per cent base has been found from as low as 2.2 per cent to as high as 2.95 per cent; on a 4 per cent base, from as low as 2.9 per cent to as high as 3.9 per cent.

Much needs yet to be accomplished in standardizing methods of computing interest credits at various base rates.

2. The average rate of income on the funds into which the savings deposits are converted.

This rate varies with the diversification of the earning assets by kinds and the money rates on the various kinds of assets.

In many commercial banks operating savings departments, no distinction is made in policy or type of asset between savings fund and other fund conversion. It is difficult in such banks to determine the amount of interest income which should be credited to the savings department.

Fund-conversion policies for savings funds vary at different banks. The factor of outlet for savings-funds investment is subject to variation in different localities. It is generally conceded, however, that little (or preferably no) savings funds should be converted into unsecured local loans, and but a small proportion into local loans secured by local collateral.

A major source of conversion, it is generally conceded, should be into prime first mortgages on local properties. In fact, the amended National Banking Act of 1927 provides that "up to 50 per cent of savings deposits may be converted into legal first-mortgage loans."

STANDARD DIVERSIFICATION OF SAVINGS DEPOSITS FOR A NATIONAL BANK

	PER CENT OF SAVINGS DEPOSITS
Cash in vaults	5
Due from banks @ 2%	5
Prime first mortgages @ 6%	30
Loans secured by marketable collateral @ 5%	20
Loans secured by prime local collateral @ 6%	10
U. S. government securities @ 3¾%	10
High-grade marketable bonds @ 5%	20
	100

	EXPENSE	INCOME
Interest income from above assets		$178,500
Direct operating expenses	$10,680	
Fund-conversion expense	8,900	
"Institutional" expense	2,300	21,880
Profit margin to provide for payment of interest, losses, taxes, and net profit		$156,620
On a 3½% base, the net interest paid would be		121,300
Profit margin to provide for losses, taxes, and undivided profits		$ 35,320

Study the table above, which represents a standard diversification of savings deposits of a national bank, in which is given due consideration to local loan-demand conditions. From this is calculated the economic rate of interest which this bank can afford to pay on savings deposits and still permit a legitimate rate of profit.

The annual rate per $100 of deposits is $1—which is conceded to be the minimum rate of profit commensurate with safety of deposit funds and legitimate earning-power requirements.

In this instance it was shown by this analysis that the 4 per cent base rate was too high for the bank to invest the savings deposits into types of assets suitable for such requirements and still leave a fair profit margin. This bank could have shown a satisfactory profit rate on a 4 per cent base, but to do so it would have been necessary to invest a substantial proportion of its savings deposits in types of assets of a yield so high (under the money-market conditions existing at that time) as to make them unsuitable for the investment of such funds under a well-balanced and sound investment program.

CHAPTER XIX

BOND AND TRUST OPERATIONS

THE period of diminishing returns in purely commercial banks, and the general tendency to enlarge the scope of service among all banks, has led some of them to organize activities whose source of income was other than from interest and discount.

In order to make possible and to encourage such activities on the part of national banks, which, up to that time, represented the largest aggregate of relatively pure commercial banks, the National Banking Act was amended in 1927.

The two major types of operations organized for this purpose are (1) bond or investment departments and (2) trust departments.

The discussion in this chapter will be limited to the types of bond and trust operations that are usually organized as departments of commercial banks.

Some bond operations are organized under a separate corporate structure, but when these are affiliated with and physically merged into the other banking departments, there is no essential difference in operations beyond an income from their own invested capital, which invested capital aids it to finance its "inventory."

If the bond operation is a department of the bank, its "inventory" is carried by the bank's funds.

BOND DEPARTMENTS

Some of the major reasons for the development of bond departments in banks are:

1. For a well-balanced banking structure there is a need for the development of other major sources of income, beyond that from interest and discount, to increase the profits of the bank.
2. To furnish customers with a real service on investments and protect them against highly speculative and unwise investments.
3. To make a profit for the bank, rather than for an outside security-selling organization, on deposit withdrawals from the bank, which monies are flowing into security channels.

Most bankers now admit that when a savings account has reached a "built-up" stage, probabilities are that at least a part of this account will be withdrawn for reinvestments in a form which will yield more than savings interest. If the bank does not sell securities to such a depositor, some one else will.

Sound bond departments, both from the point of view of the customer and of the bank, are founded upon the following two principles:

1. Purchase only real investment securities for resale to your customers. The test in selection is not size of commission profit but, "Would we purchase this same security for the investment account of the bank?"

2. Obtain low cost of distribution. This can be done only by the development of a large over-the-counter business through the coöperation of all of the officers and department heads. Everyone should be a bond salesman. When the bulk of the sales is made by full-time bond salesmen, the cost of distribution is high, and there is a natural tendency to sell bonds with a high rate of commission profit. Unfortunately, the higher the commission rate the lower usually is the quality of the security.

A bond department founded and developed in accordance with these principles is an "institutional" department. It is characterized by a low sales cost per $1,000 of securities sold, and requires the services of relatively few full-time salesmen.

The bulk of sales is made without cost to the bond department by officers of other departments and to customers of other departments of the bank who have been circularized on a "selected list" basis.

A "free-lance" bond department is one where the condition is reversed—that is, a high selling cost is encountered because practically all sales are made by full-time salesmen, and there exists little or no coöperation between the officers of other departments and the bond department.

It is needless to say that an "institutional" department has by far the greatest operating-profit ratio.

Hence banks should strive to develop their bond departments along "institutional" lines.

The only real source of income and profit of a bond department is the commission income on securities sold—called the "trading-profit margin." In purchasing securities for resale it is, therefore, important that the following points be observed:

1. Purchase securities of a type for which there is a demand from the customers of the bank or for which it is certain that a demand can be created. In this selection, safety of principal, yield, and degree of marketability must be considered.
2. Purchase securities on which the commission, or trading-profit margin, is sufficient to make the sale profitable to the bank. Securities with a small margin must be of a nature which can be quickly "turned" at a small selling expense.

Some bond departments dilute their aggregate volume of sales with such a large proportion of small-margin securities that they develop a high sales volume in dollars but little or no net profit—they drift into a condition of "profitless prosperity."

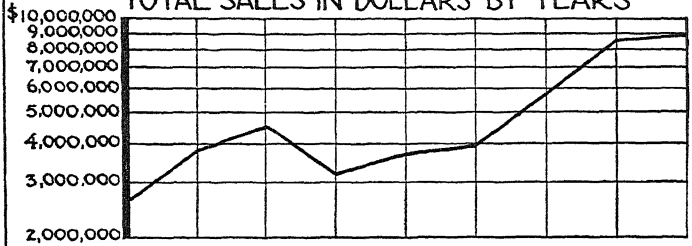
The trend of commission, or trading-profit margins, should be carefully analyzed. Types of such analyses are shown on the charts on the following page.

The top chart reflects the trend of dollars of sales per year and the average commission profit per $1,000 of

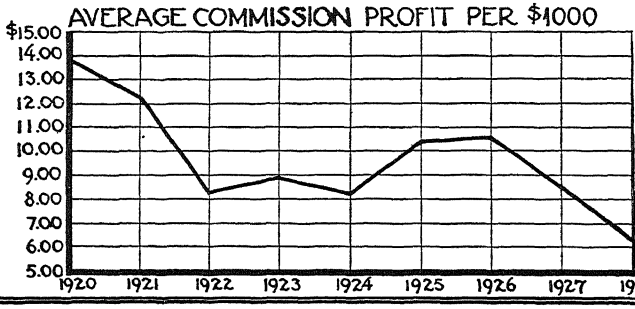
TREND OF

COMMISSION PROFIT MARGINS

TOTAL SALES IN DOLLARS BY YEARS

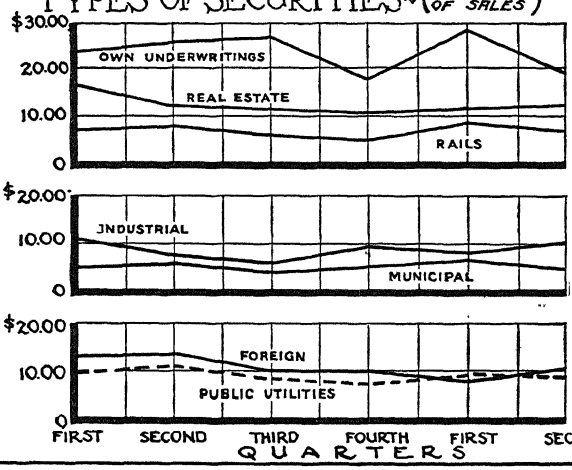


AVERAGE COMMISSION PROFIT PER $1000



TREND OF

COMMISSION PROFIT MARGINS BY TYPES OF SECURITIES (PER $1000 OF SALES)



sales. The lower chart reflects a more intensive study of the trend of margins by classes of securities sold.

The point in mind is to select such a proper mixture of securities that the average margin on total sales is maintained at a profitable level.

TRUST DEPARTMENTS

It is not intended to discuss here the legal or technical phases of trust accounts, for a mass of material is available on that subject. From a standpoint of bank administration, it is important that the work of the trust department be properly organized and supervised, so that the transactions involved are handled in an efficient manner.

The chart on page 207 illustrates a functional organization plan for a trust department of a bank. Regardless of the size of the operation, all of the activities are, or should be, carried on.

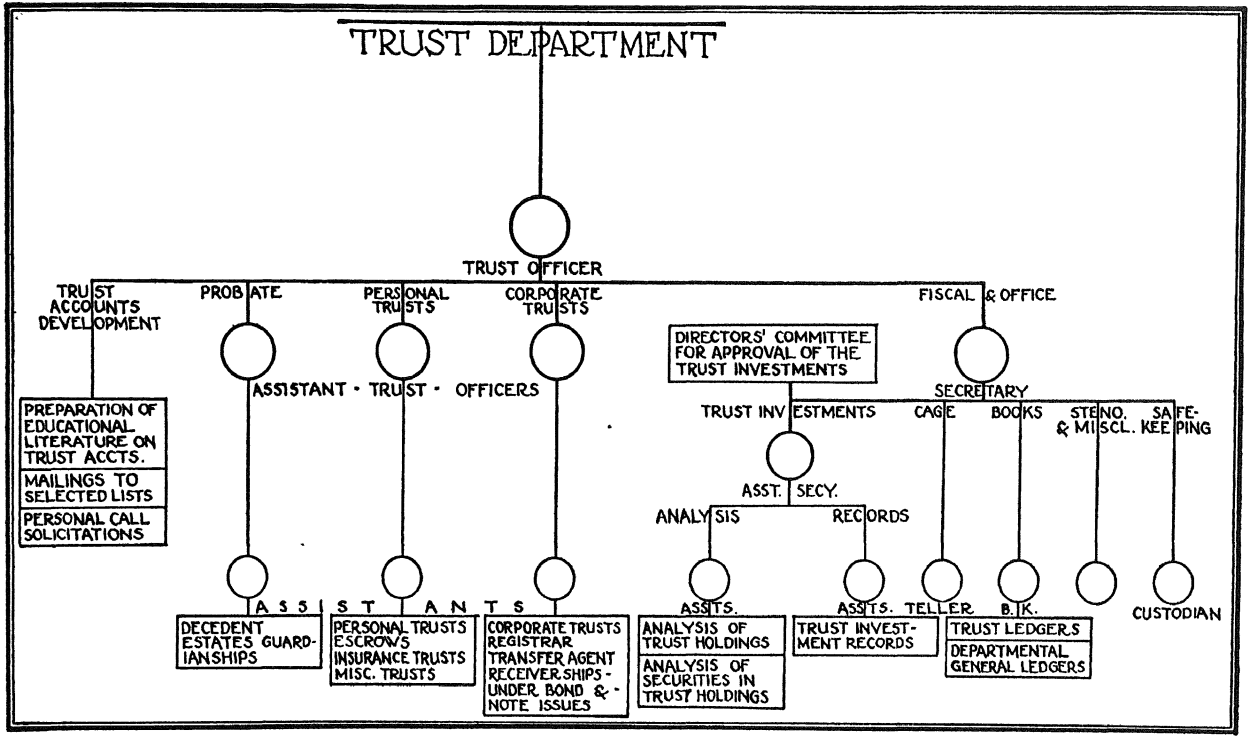
Many trust departments are still so undeveloped as to require but part of the time of one individual. Others have grown to a size requiring the services of hundreds of individuals. Regardless of size, however, the chart illustrates the proper organization principle of a trust department, from a standpoint of functional activities, subdivision of work, and lines of supervision.

In small operations one individual may perform several of the activities shown. In large operations

a number of persons are required to perform one of the activities.

It will be observed that three major functions are involved:

1. The development of trust accounts. The most effective methods consist of —
   a. Educational work, primarily through mail circularizing of educational literature to selected lists of customers of other departments of the bank.
   b. Personal calls on prospects.
2. Customers' service on the part of various assistant trust officers who actually come in contact with the customer in discussing and developing the various features of the account. These are rail officers, who function somewhat like assistant cashier rail officers in the commercial banking department with respect to customers' relationship.
3. "Fiscal and Office" relates to the analysis of trust holdings, the investment of trust funds, and the handling and recording of all transactions involved. It is partly an investing and custody operation and partly a recording operation. From the point of view of the personal trust client, the trust-investment function is the heart of the trust department. Therefore, even more rigid protective measures as to investment of


TRUST DEPARTMENT
TRUST OFFICER
TRUST ACCOUNTS DEVELOPMENT
PROBATE
PERSONAL TRUSTS
CORPORATE TRUSTS
FISCAL & OFFICE
DIRECTORS' COMMITTEE FOR APPROVAL OF THE TRUST INVESTMENTS
ASSISTANT · TRUST · OFFICERS
SECRETARY
TRUST INVESTMENTS
CAGE
BOOKS
STENO. & MISCL.
SAFE-KEEPING
ASST. SECY.
ANALYSIS
RECORDS
PREPARATION OF EDUCATIONAL LITERATURE ON TRUST ACCTS.
MAILINGS TO SELECTED LISTS
PERSONAL CALL SOLICITATIONS
ASSISTANTS
DECEDENT ESTATES GUARDIANSHIPS
PERSONAL TRUSTS
ESCROWS
INSURANCE TRUSTS
MISC. TRUSTS
CORPORATE TRUSTS
REGISTRAR
TRANSFER AGENT
RECEIVERSHIPS - UNDER BOND & - NOTE ISSUES
ASSTS.
ANALYSIS OF TRUST HOLDINGS
ANALYSIS OF SECURITIES IN TRUST HOLDINGS
ASSTS.
TRUST INVESTMENT RECORDS
TELLER
B.K.
TRUST LEDGERS
DEPARTMENTAL GENERAL LEDGERS
CUSTODIAN

trust funds should be inaugurated than in the investment function of the commercial banking department or the bond department.

From the point of view of the bank as a whole, a trust department which has been correctly developed and brought to a seasoned stage is a most satisfactory operation. Such seasoned, well-managed trust departments have a substantial operating-profit ratio to gross income, and this profit rate is more stabilized, over a period of years, than the profit rate of other departments, whose incomes and expenses are subject to far greater fluctuations.

A trust department contributes a great deal to other departments. It develops deposit funds for the banking departments and furnishes an additional source of customers' contact through which many other departments can benefit.

CHAPTER XX

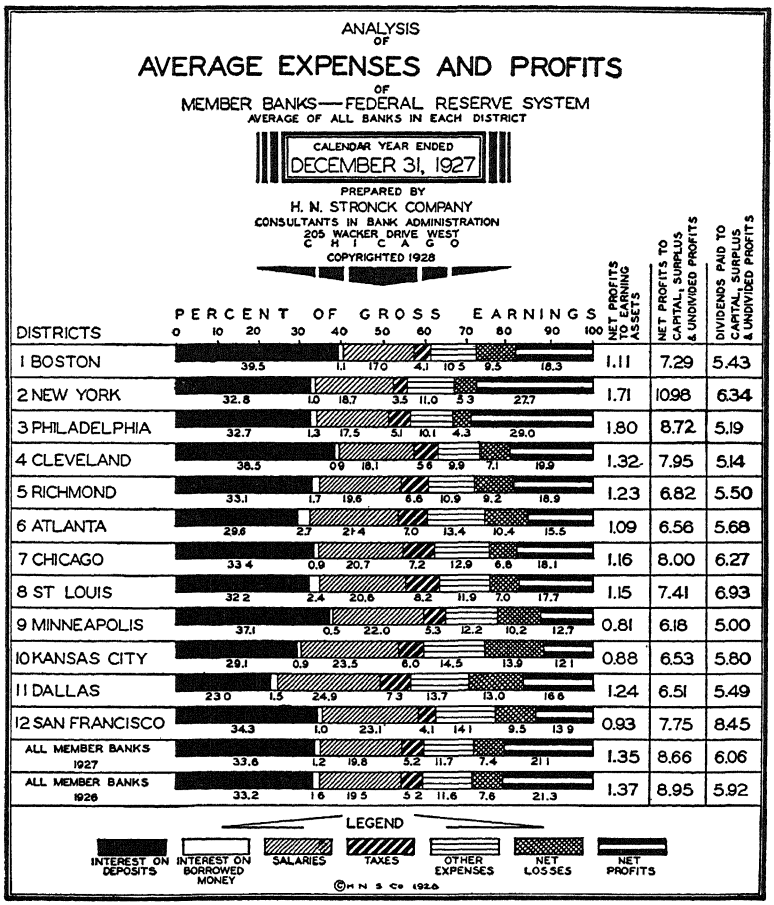
COMPARATIVE MEASUREMENT OF RESULTS

IN AN endeavor to study the economic trend of banking from a standpoint of earning power, the author translated the dollar figures of incomes and expenses of bank aggregates, as published by regulating bodies such as the Federal Reserve Board and the Comptroller of the Currency, into percentages of gross income, and hence was able to trace the trend of the disposition of each income dollar.

These ratio studies were apparently of interest to bankers, for in 1924 a number of large city banks asked for permission to distribute these charted studies of the expense ratios of member banks of the Federal Reserve System to their country-bank correspondents. This form of ratio statistics became so popular that a new edition was compiled each year and distributed to thousands of banks through their state bankers' associations and city banks. A copy of this well-known study is reproduced for illustrative purposes on page 210.

Banking was in the midst of an unprecedented era of bank failures and reduced net profits, and hence regulating bodies, bankers' associations, and prominent individual bankers were advocating studies of banking costs and better banking practices.

These activities, together with statistical studies of bank incomes and expenses made by regulating bodies



and bankers' associations, led bankers not only to determine more carefully their own results from operations, but to compare these results with such distributed statistics. Thus an era of comparisons developed

in the banking field which, if carried out on a scientific basis, should result in better banking practices.

To date, the most generally available and by far the most widely distributed statistics have taken the form of the one illustrated; "breakdowns" of these aggregate ratios into *size* groups of banks; of national banks into groups by reserve cities and country banks by states; of all banks, both state and national, for certain states.

In these studies the major expense groups are stated as percentages of gross income. Other widely distributed statistics of the Federal Reserve Board express the incomes and expenses as "per $100 of earning assets." The tables are illustrations of such statistics by size groups and per $100 of earning assets.

Since the make-up of sources of income and rates of income from earnings assets and the make-up of the deposit and loan business vary considerably between individual banks, any comparison of the expense ratios—either in relationship to gross income per $100 of earning assets or per $100 of deposits—of an individual bank with similar ratios of aggregates of other banks, whether by size groups or not, is relatively meaningless for the purpose of determining deviations from standard costs.

All that such a comparison can possibly do is to indicate the position of an individual bank in the general banking field.

The fallacy of comparisons with such broad ratios, for the purpose of determining subnormals in expense groups of individual institutions, was clearly disclosed to the author after a detailed study of all of the factors which influence expenses and net profits in several hundred banks located throughout the United States.

These banks range from small country banks with deposits of less than $500,000 to large metropolitan institutions with deposits in excess of $300,000,000; from banks whose entire source of income was from interest and discount to banks whose major source of income was from bond, trust, and real-estate mortgage operations; from banks whose deposits were almost entirely made up of demand deposits to banks which are primarily time-deposit or savings banks.

A study of these detailed factors, gathered in many different types of banks and assembled comparatively, led the author to formulate certain definite laws as to comparative-cost factors.

A knowledge of these laws is essential in comparing the results of one institution with the results of others. Also, a knowledge of these fundamental laws will serve to build a banking structure, or reconstruct a present structure, along lines which will yield the greatest earning power and financial stability. The two basic laws, formulated a few years ago and first published in a paper presented by the author before the examiners'

conferences at the 1927 annual meeting of the American Bankers Association, are as follows:

1. *The law of time deposits:* "The greater the ratio of time deposits to total deposits, the greater will be the interest-paid-on-deposits ratio and the less should be the other current-expense ratios."
2. *The law of transactions:* "In commercial banking, the greater the number of transactions per $1,000 of demand deposits per month, the greater will be the current-expense ratios and the less should be the interest-paid-on-deposits ratio."

These two laws clearly indicate that the general-expense ratios, whether expressed as percentages of gross income, percentages of earning assets, or percentages of deposits, are not applicable for comparative-cost purposes unless the underlying condition, as expressed by the two foregoing laws, is practically identical in the compared banks.

From these two basic laws, further detailed, or underlying, laws have been developed.

Next to interest paid, salaries and wages represent the largest group of current expenses in banks. From 20 per cent to as high as 60 per cent of this expenditure is represented by the salaries of officers and department heads, and a large percentage of the

Analysis by Size Groups

Chicago Member Banks—Seventh Federal Reserve District

Average Earning Assets	Per Cent Ratio to Gross Earnings					
	Under $1,000,000	$1,000,000 to $2,000,000	$2,000,000 to $5,000,000	$5,000,000 to $10,000,000	$10,000,000 to $15,000,000	Over $15,000,000
Salaries and wages	32.118	31.157	26.461	25.301	23.295	19.392
Interest paid on deposits	17.138	22.882	27.749	27.650	26.982	31.359
Total expenses	77.358	80.185	77.388	74.966	77.412	69.637
Net losses	1.729	7.847	4.102	3.614	2.139	2.539
Net additions to profits	20.913	11.968	18.510	21.420	20.450	27.824

(*Prepared by Division of Research and Statistics, Federal Reserve Bank of Chicago*)

Analysis per $100 of Earning Assets

Average of all Member Banks by Districts

Per $100 of Earning Assets	Boston	New York	Philadelphia	Cleveland
Interest on deposits	$2.41	$2.00	$2.03	$2.56
Interest on borrowed money	.08	.08	.09	.07
Salaries and wages	1.02	1.14	1.08	1.18
Taxes	.04	.22	.34	.40
All other expenses	.63	.66	.62	.64
Total expenses	$4.38	$4.10	$4.17	$4.85
Net earnings	1.73	2.06	2.06	1.73
Net losses	.51	.35	.32	.41
Net additions to profits	$1.22	$1.71	$1.74	$1.32

(*From Federal Reserve Bulletin*)

aggregate time, and salary cost, of these individuals is devoted to "conversion of funds" work—loan administration.

The cost of fund conversion is dependent upon the type, and proportion to one another, of the earning assets into which the deposit and invested-capital funds are converted. This condition varies considerably among banks, for it is dependent upon the nature of the make-up of deposit funds, local loan demand, and loan-administration policies.

The laws affecting comparative costs of fund conversion are as follows:

1. The greater the conversion into local loans, the greater will be the conversion cost per $100 of aggregate earning assets, the greater the loss possibilities, and the greater the average rate of income.

This explains why a bank with a large proportion of investment bonds in its total earning assets should have fewer loaning officers and a smaller conversion expense per $100 of total earning assets than a bank with a large proportion of loans and discounts and a small proportion of bonds and securities.

2. The greater the proportion of loans secured by ample marketable or other prime collateral, to total loans, the smaller should be the loan cost per $100 of total loans.
3. The greater the proportion of small loans to total

loans in number, the greater will be the loan cost per $100 of total loans.

A large percentage of the loans in number may be so small that the income derived therefrom does not compensate for the cost of funds and the handling cost of loans.

Other laws which affect the cost of handling the deposit business are:

1. In demand deposits, the greater the proportion of small accounts to total accounts in number, the greater will be the operating-expense ratios per $100 of demand deposits.

A realization of this law has caused the introduction of service charges on small checking accounts.

2. In savings departments, the greater the average balance per account, the smaller will be the current operating-expense ratios per $100 of aggregate savings balances, outside of interest-paid-on-deposits ratio.

A study of the activity of savings accounts indicated that the size-of-balance factor in an account did not influence the number of transactions during a given period of time; small accounts are just as active as large ones.

3. The greater the turnover of deposit accounts, the greater will be the current operating-expense ratios, outside of interest paid, per $100 of aggregate deposits.

4. Other things being equal, the greater the ratio of deposits to invested capital, the greater will be the net profits to invested capital.

Many other laws dealing with detailed factors of departmental operations such as cages, transit, individual books, distribution, and so on, have been developed, also laws affecting the comparative-cost position of bond departments and trust departments. The foregoing illustrations, however, serve as a demonstration that when one bank compares its results with that of another, it should be certain that the factors which affect the underlying comparative ratios are alike.

Much needs yet be accomplished in the banking field in the development of truly scientific "yardsticks" for the measurement of comparative results. That the development of such "yardsticks" will be a large and difficult task is best seen by a study of the laws of the variables which exist.

To accomplish this, the operations and operating conditions of hundreds of banks of all sizes and varieties as to the nature of their business, must be "broken down" into detailed factors, gathered in a like manner, so as to be truly comparable, and assembled at one source.

Then the most favorable cost factor must be selected from these and the method which produced this cost studied.

This would then be a standard cost under a standard method, and should then be the "one best way" for that detailed operation.

Such research work must be continuous, for progress is made each day in better methods. A standard of today may be obsolete tomorrow.

Any effort along the foregoing lines would be of lasting benefit to the banking field as a whole, for the dissemination of best policies and best methods, and their adoption by all banks would do more for the establishment of better banks and better bankers than any other method which has as yet been devised. It would accomplish the prime objective of banking: management both for ample liquidity to protect depositors and for ample net profits for invested capital.

REFERENCE SUMMARY

PAGE

CHAPTER I. THE TRIANGLE OF MANAGEMENT

The triangle of management is composed of three factors: (1) Sound Policies; (2) An Effective Organization; (3) A Control over the Organization.

Sound Policies:

Policies seldom found in written form 12
Many policies are traditional 12
Are policies actually applied? 13

An Effective Organization:

Application of sound policies depends on organization 14
Inefficiency begins at the top and trickles down; it does not begin at the bottom and trickle up . . . 14
Inventory should be taken as to capabilities of present members of organization to determine if all "key" positions in ideal organization plan can be filled . 15
Chief executive should have ideal plan, then choose and train individuals to fit plan 15
Should volume of increase in deposits be only consideration in new business plans? 16
Bank should know definitely its margin of profit on various operations in order to operate intelligent business-development plan 17
Work should be so organized that officers and "key" employees can devote a definite amount of time to calling on customers and prospects 18
Law of time deposits 18
Law of transactions 18
"Shifting crew" principle has a high time-utilization factor 21
All bank jobs can be analyzed and classified into a number of groups 22

PAGE

There should be a minimum and maximum range of salary for each group 22
Degree of seasoning of an organization reflects the result of personnel policies and then application . 23
An increase of ten per cent above the average wage scale will attract "cream" employees 23
Method of developing "yardstick" to measure efficiency of loan administration 26

A Control over the Organization:
Prime object of control function 27
Duties of comptroller of bank 28
Budgets should be based on standard ratios . . . 28
Development of "yardsticks" for the measurement of managerial ability 29
Factors influencing net profits 29–30

CHAPTER II. OPERATING PROFIT FACTORS

The net profits of a bank should be sufficient to yield an adequate return to the stockholders commensurate with the investment risk and investmeut desirability.

How to determine adequate return on invested capital in individual institution 31–42
Size of bank factor 33
Operating profit factors 35
Sources of income factors 36
Time deposit ratio factor 37
Overhead factor 39
Activity factor 39
Ratio of invested capital to deposits factor . . . 40

CHAPTER III. SOUND POLICIES

"A sound policy is of more avail than elaborate equipment."

What is a policy? 43

PAGE

Policies should be formulated based upon facts and not upon opinions 44
Requirements of policies 44
Who should formulate policies? 44
Grouping of policies as to objectives 45
Cases illustrating:
Return on investment 47
Loan administration 48
Profitableness of deposit accounts 49
Interest paid on time deposits 49

CHAPTER IV. THE ORGANIZATION STRUCTURE

"Organization is the proper adjustment of the relationship between human beings in an effort to accomplish certain definite ends."

What is administration? 51
What is management? 51
What is organization? 51
Functions in existence in a two-person bank . . . 52
How functions are divided 53
Illogical grouping of activities 54
Reasons for illogical grouping 54, 56

CHAPTER V. ORGANIZATION ANALYSIS

Factors in organization analysis 58, 59
Five organization principles 60–62
Steps necessary in the development of functional organization plans 62
Division of work into major groups 64

CHAPTER VI. PERSONNEL ADMINISTRATION

Success of bank largely dependent upon character and ability of personnel 66
Types of personnel analysis to be applied 66
Classification of jobs 67

PAGE

Principles to be used in defining salary rates . . . 69
Seasoning factor 71
Objective of personnel administration is to increase the seasoning factor 74

CHAPTER VII. DEVELOPMENT OF PERSONNEL

The major problem of perpetuating any individual bank lies in the development of methods, and their application, to perpetuate the organization.

Personnel should be developed in advance of the actual demand 75
Problems in personnel development 76
Selection of personnel 76
Questions to be considered in selection of new employees 77
Qualifications for various groups of work 78
Training of personnel 79
The three-position plan 80
Incentives 81
The technical value of practically all jobs in a bank can be determined by job analysis 83
Profit-sharing and bonus plans 84
Ability rule for promotions 85
There is no relationship between technical ability and executive ability 86

CHAPTER VIII. THE BUSINESS DEVELOPMENT FUNCTION

Banks should concentrate on highest profit activities 89
A bank must know its costs and profit margins . . 90
Analyzing profits 90
Modern conceptions of banking 93
The time has arrived for bankers clearly to analyze the fundamentals 93

PAGE

The greatest factor in the growth of many institutions has been the following created by the personal contact of directors and officers 93
Illustration of application 96
Assignment of calls 97
Sources of information for calls 98
Record of results produced 98
Incentive plan 99

CHAPTER IX. THE OPERATING FUNCTION

The operating function in a commercial bank deals with the performance necessary to the internal handling and recording of transactions and the serving of customers in accordance with the best policies of customer relationship.

Functional divisions 101
Customers' service 103
Operating 103
General service 104
Modern operation trends 104
Commercial paying and receiving 104
Distribution and proof 105
Individual books 106
Transit 106
Shifting-crew principle 107
The shifting-crew method is for the purpose of utilizing all of the time of all of the personnel and, when fully developed and effectively supervised, results in a substantial reduction in transaction costs . . 108

CHAPTER X. BANK PRODUCTION ANALYSIS

Purposes of production analysis 110
Commercial paying and receiving cages 111
Measuring production of employees 116

PAGE

CHAPTER XI. LOAN ADMINISTRATION POLICIES

Loan administration is that function which relates to the effective conversion of liability funds into earning assets, and the sound administration of these earning assets.

Elements with which loan administration deals . . 117
Effective loan administration manages for both liquidity and profits 118
Study of financial policies of banks 119
Program to follow to assume liquid position . . . 120
Reasons for bank failures 121
Capital financing 122
Capacity of the borrower to pay the loan at maturity 122
Relation of deposit balances to loans 123
Twenty per cent rule 124

CHAPTER XII. THE EVALUATION OF CREDIT RISKS

The foundation of all successful banking lies in sound credit policies and effective loan administration.

Large losses mean an unwise and over-liberal extension of credit 128
Basis of sound credit 128
Results of analysis of commercial and industrial charge-offs 128, 129
Degree of success and future stability of any enterprise dependent upon three factors 129
Methods of credit analysis 130
How to measure capital 131
How to measure character 131
How to measure managerial ability 132
It is in the evaluation of managerial ability that considerable progress must be made, if the drain of credit losses is to be kept at an economic minimum 133

PAGE

The most satisfactory manner of evaluating this managerial ability or capacity factor is by means of industrial or commercial survey 133
What survey should cover 134–136
How large banks make analyses 137
Industrial-service departments 137
Experienced business men as loan officers 138
Outside experts 138
Benefits of sound credit policies and administration . 138

CHAPTER XIII. CONVERSION OF FUNDS

Standards of liquidity vary with local conditions and the nature of the deposit and loan business in each particular bank 139
Trend of cost of funds and income rates 140
Size of loan lines 143
Classification of local loans by nature of the business of the borrower and security 144
Turnover of loan lines 145
Compensating balances 147
Eligible paper 148
Function of controller of loans 150

CHAPTER XIV. SECONDARY RESERVES AND INVESTMENT ACCOUNT

The secondary reserve 152
Laws as to secondary reserves and conversion of funds 153
Factors in composition of the secondary reserve . 154
Maturity distribution of secondary reserve accounts 155
The investment account 156
Example of financial policy and conversion of funds program 158

CHAPTER XV. THE CONTROL FUNCTION

Control function in bank management 160

PAGE
Duties of comptroller and auditor 160
How auditing developed 162
How the control function originated 163
Illustration of some of the major activities of a fully developed control function 166

CHAPTER XVI. DEPARTMENTAL EARNINGS ANALYSIS

Example of "lump sum" operating statement . . 169
Sources of income 170
Costs involved in "fund departments" 172
Advantages of income and expense analysis . . . 174
Budgetary control 175
What correctly compiled and properly administered budget will accomplish 175
The setting of expenses is not true budgeting but is simply expense control 176
An ideal expense-control budget would be one where each item of expense in each department is set, based upon standard operating expense ratios . . 177
Budget should act as brake on unwise expenditures, but not be so restrictive as to prevent the taking of a profit advantage 178

CHAPTER XVII. ANALYSIS OF THE COST OF DEPOSIT ACCOUNTS

Cost, or expense, groups entering into analysis of the cost of the aggregate of commercial department deposit funds 180
Rate of income to be applied or loanable balance . . 182
Accounts subject to analysis 184, 185
Treatment of unprofitable accounts 185
Ways of making accounts profitable 186
Illustration of application 186
Unwise competition for checking accounts is the dominant cause of decreasing profit margins . . 190

PAGE

CHAPTER XVIII. SAVINGS DEPARTMENT OPERATIONS

The problems of administration and operation of the savings department of a commercial bank are of a different kind and character from those involved in the commercial department

Causes for dissimilarity 191
Profitable savings accounts 192
Daily fluctuations in number of transactions handled 194
Amount of interest a bank can afford to pay . . 196

CHAPTER XIX. BOND AND TRUST OPERATIONS

Bond departments 201
Reasons for development of bond departments in banks 201
Principles to be followed in bond departments . . 201
Points to be observed in purchasing securities for resale 203
Trust departments 205
Major functions involved in trust departments . . 206

CHAPTER XX. COMPARATIVE MEASUREMENT OF RESULTS

Methods of comparison 210
Fallacy of comparisons 212
Law of time deposits 213
Law of transactions 213
Laws affecting comparative costs of fund conversion 215
Laws affecting the cost of handling the deposit business 216, 217
Research work must be continuous, for progress is made each day in better methods 218
Management should be for both ample liquidity to protect depositors and ample net profits for invested capital 218

LIST OF CHARTS

PAGE

A chart showing the expenses, profits, and profit rates to invested capital for all national banks 32
Chart "A." Organization for bank operated by two persons only 52
Chart "B." Present organization structure of commercial bank with a personnel of thirty-two 55
Functional organization plan of a commercial bank with a personnel of forty 63
Functional organization plan of a large commercial bank with a personnel of over two hundred 64
Bank operations 72–73
Showing how individual employees vary in speed . . . 87
Business development 95
The operating function of a commercial bank 102
Time allocation 108
Consolidated activity 112
Daily and monthly fluctuation of transit items . . . 113
Daily fluctuation in debit and credit postings to individual books 114
Per cent of net losses to gross income 118
Per cent of net losses to gross income, showing averages of national banks in various cities for fiscal years ended June 30 127
Trend of income rates from assets; also trend of cost of funds in averages for years 1923–27 141
Function of the controller of loans 149
The major activities of a fully developed control function 166
Type example of departmentalized operating statement . 171
Method of estimating the profit or loss from an account . 187
Daily variations in number of savings items 195

PAGE
Trend of commission profit margins 204
Trust department 207
Analysis of average expenses and profits of member banks of the Federal Reserve System 210
Analysis by size groups of Chicago member banks, Seventh Federal Reserve District 214
Analysis per $100 of earning assets of Federal Reserve banks 214

UNIVERSAL
LIBRARY